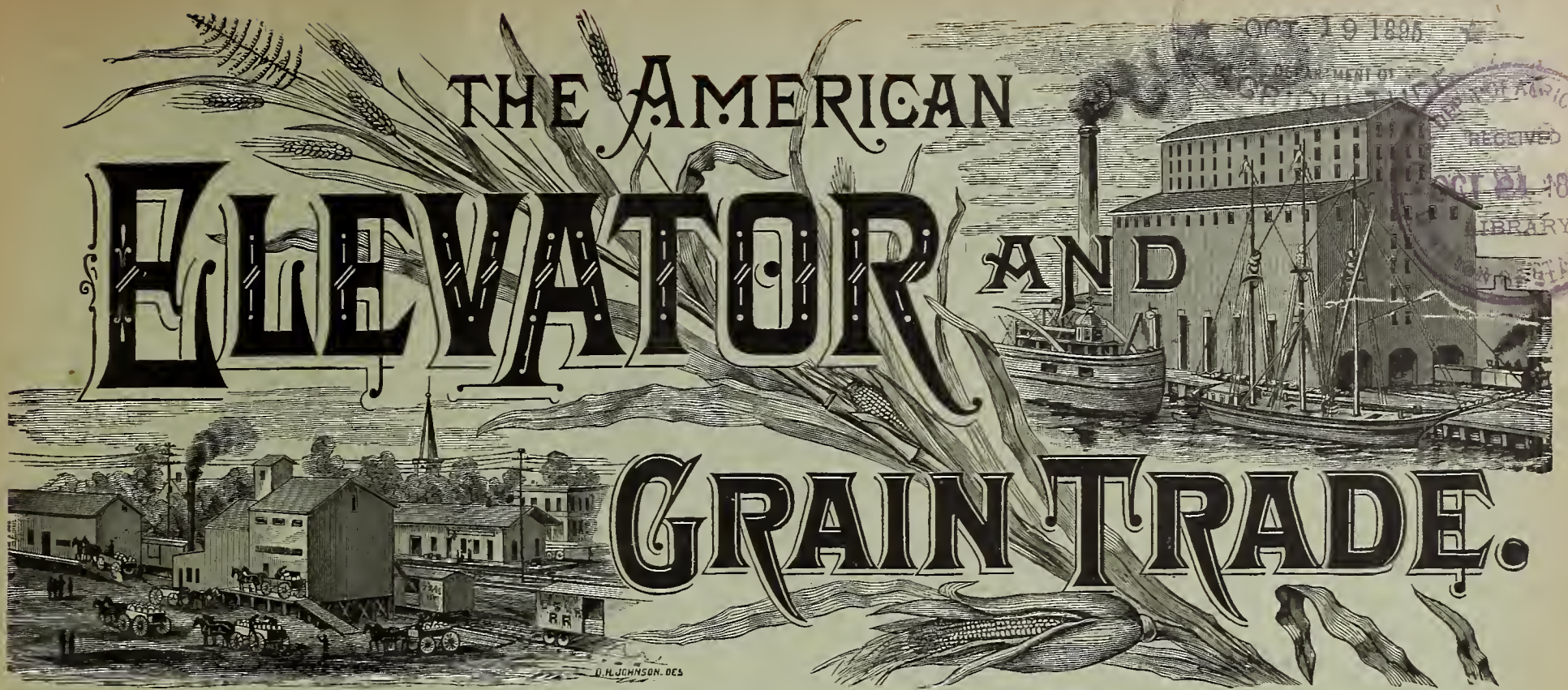


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



Entered at the Post Office at Chicago, Ill., for transmission through the mails at second-class rates.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY,
(INCORPORATED.)

VOL. XIV.

CHICAGO, ILLINOIS, OCTOBER 15, 1895.

No. 4.

ONE DOLLAR PER ANNUM.
SINGLE COPY, TEN CENTS.

Excelsior Grain-Cleaning Machinery

CONSISTING OF THE

EXCELSIOR Dustless Warehouse and Elevator Separator,
EXCELSIOR Oat Clipper, EXCELSIOR Separator and Grader,
EXCELSIOR "Combined Grain Machine."

ALSO

PEASE DUSTLESS SEPARATORS and WAREHOUSE FANNING MILLS,
POWER CAR PULLERS, GASOLINE ENGINES, STEAM ENGINES, HORSE POWERS,
POWER TRANSMISSION MACHINERY,
GENERAL MILL AND ELEVATOR SUPPLIES.

Headquarters for
SHAFTING, HANGERS, PULLEYS,
GEARS, SPROCKET WHEELS,
"Sweep" and "Tread" Horse Powers,
Elevator "Boots," "Heads," "Buckets,"
FEED GRINDERS,
Special Flax Mills; Single, Double and
Quadruple Flax Reels.
..... BELTING
"Platform," "Hopper" and "Dump"
Scales, Flexible Loading Spouts.
Corn Shellers, all kinds of FITTINGS,
SUPPLIES and MACHINERY for
Elevators and Mills.
Elevator Equipments a Specialty.

ADDRESS

E. H. PEASE MFG. CO., RACINE, WISCONSIN.

GALDWELL
CONVEYOR
HORSE POWERS
WIRE ROPE
BELT TIGHTENERS

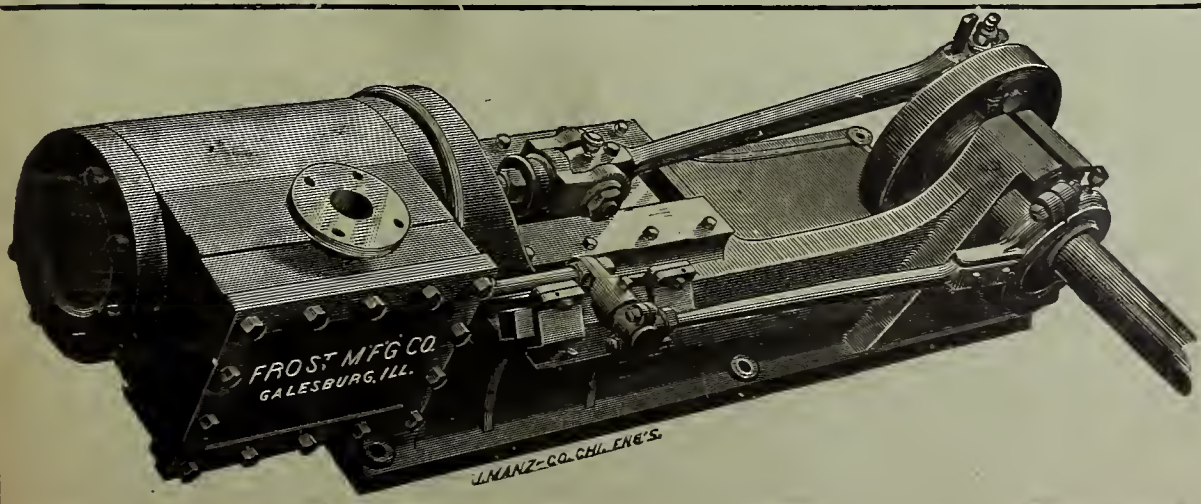
MILL AND ELEVATOR MACHINERY
ELEVATOR BOOTS
ELEVATOR BUCKETS
ELEVATOR BOLTS
BELTING AND ROPE TRANSMISSION
SHEAVE WHEELS
SHAFTING, HANGERS
SPROCKET WHEELS



SEND FOR CATALOGUE

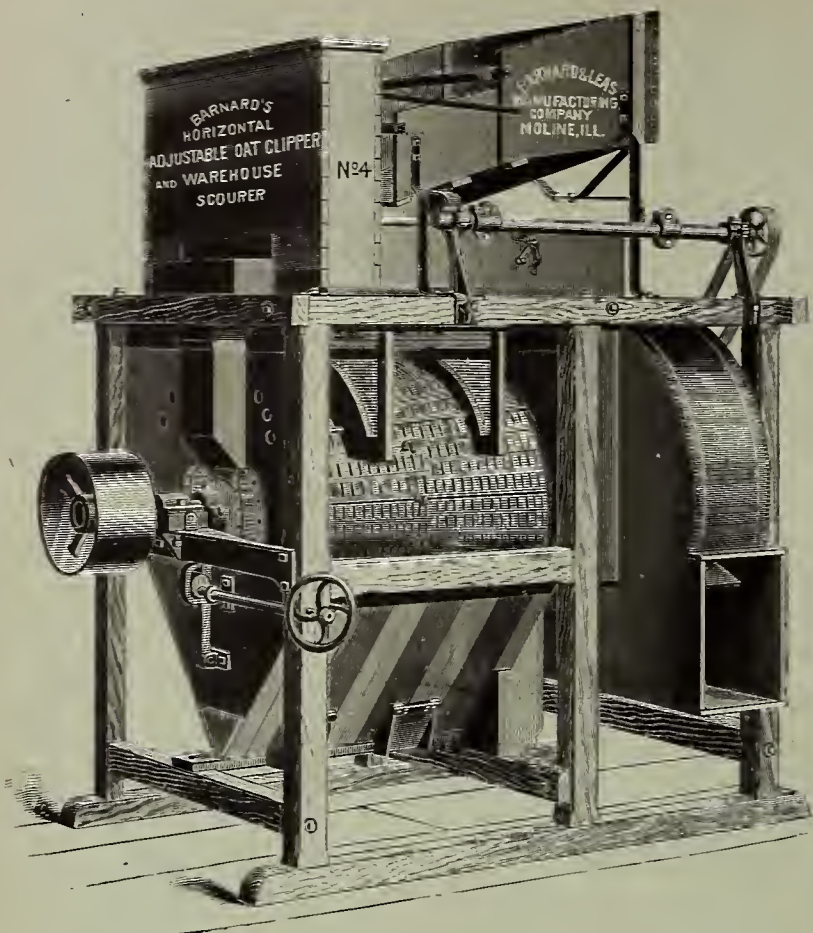
**THORNBURGH
MFG. CO.**

110 Jefferson Street
CHICAGO, ILL.



FOR PRICES AND DISCOUNTS
— ON —
**Elevator Machinery
AND SUPPLIES**
— OF —
EVERY DESCRIPTION,
ADDRESS EITHER STEAM OR HORSE-POWER,
**The FROST MFG. CO.,
GALESBURG, ILL.**

AMERICAN ELEVATOR AND GRAIN TRADE.



Smut in Wheat

TAKE
IT
OUT By Using

BARNARD'S

New Horizontal Adjustable Warehouse Scourer

OF LARGE
CAPACITY.

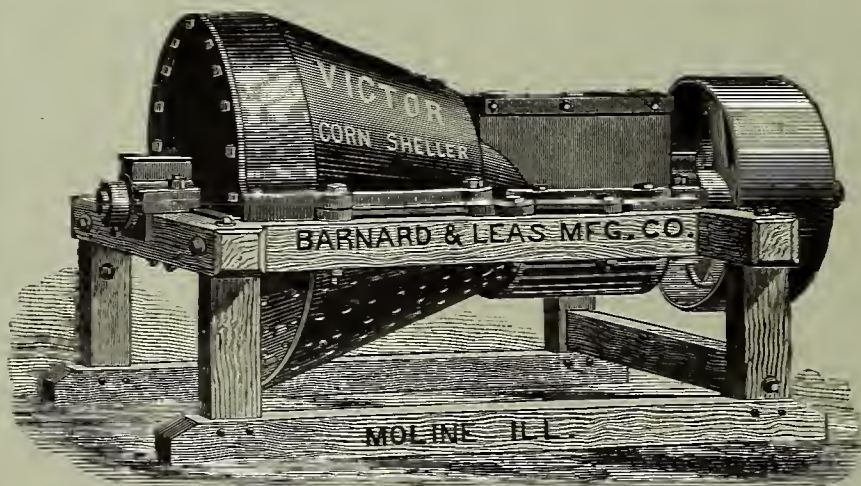
THE BEST SCOURER IN USE.

TRUE
AND TRIED.

It is Also the Best Oat Clipper in Use.

Corn

Corn



The best outfit for shelling
it is the

VICTOR SHELLER,

And the best cleaner the

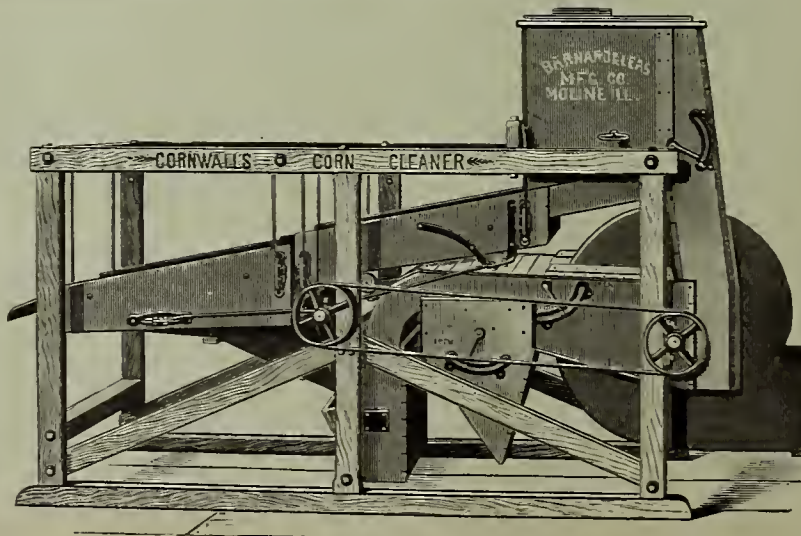
**CORNWALL
CORN CLEANER.**

We guarantee them to clean the corn
for market cleaner than any other out-
fit on earth. Write for further infor-
mation to

BARNARD & LEAS

MFG. CO.,

MOLINE, ILLINOIS.

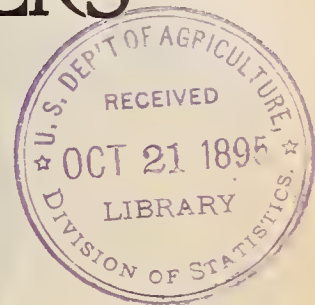


Corn

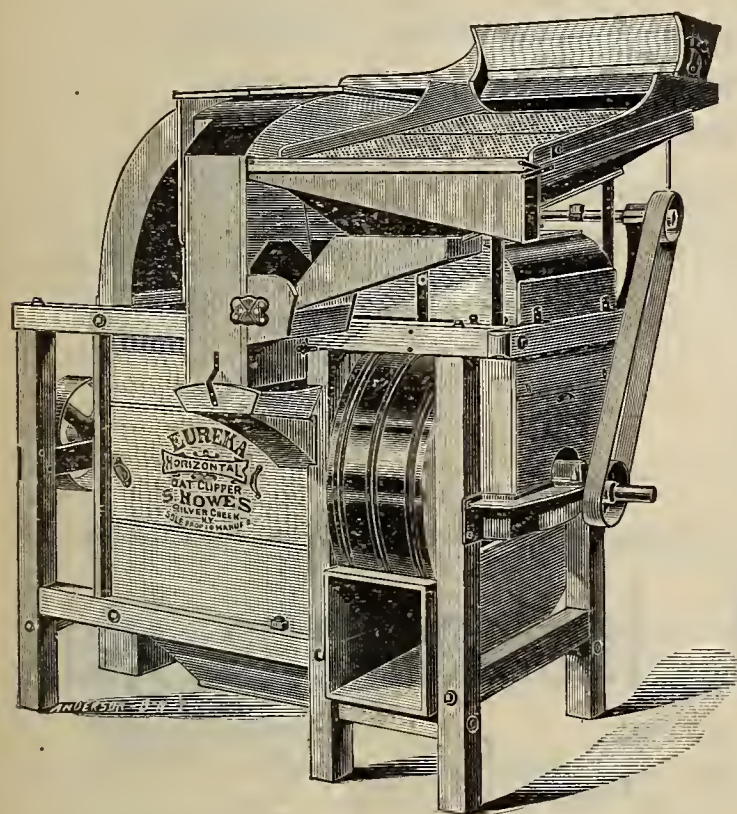
Corn

EUREKA OAT CLIPPERS CLOSE SCOURERS

LEAD—Do Not Follow.
ARE ORIGINAL—Not Imitations.



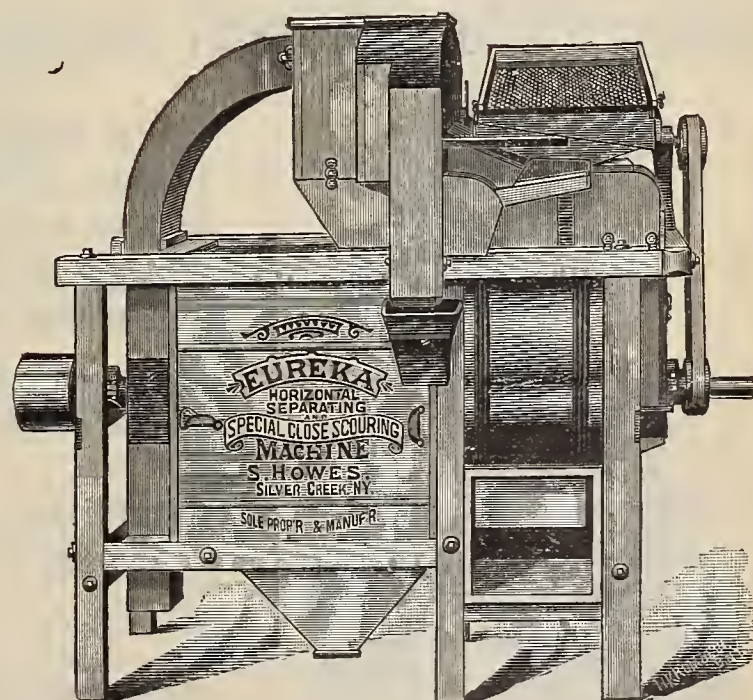
CLIPPED OATS, TO BE PROFITABLE, MUST BE PROPERLY DONE.



The Eureka Oat Clipper will do this work properly with the least waste. It is the pioneer in the trade and is used almost exclusively in all of the largest oat centers in the country, having displaced many others. Our long experience has enabled us to bring it to such a point of perfection that its work is far above all competitors. Others, modeled as closely as possible after the Eureka, are offered you, but they are not the result of long experience, and in these days of close margins you can't afford to try other people's experiments. You want something that has stood the test of years' service and that will do the most work with the least power. You can find this only in the **Eureka Oat Clipper**. They range in capacity from 10 to 1,000 bushels per hour. While this machine can be used for smutty wheat, remember, we do not offer or recommend it for that purpose. In many things it differs materially from our regular Scourer that we offer for smutty wheat, and we claim that an Oat Clipper that will successfully clip oats will not successfully clean smutty wheat or any other wheat. The Eureka Clipper can be used as a Barley Scourer and will do fine work.

SMUTTY WHEAT.

This is the only machine in the world that will thoroughly and perfectly take the smut out of your wheat. Of course, either type, the Upright or Horizontal, of the Eureka Scourer, will do the work. Time and time again has this been proven, and we stand ready to furnish you a machine to try. If it does not do it, you do not have to keep the machine. The almost unprecedented demand this season for these machines, from parties who have carefully looked into every phase of the situation, demonstrates that we are correct. We can furnish you machines in eleven sizes, of almost any capacity required. The only difference in the Upright and Horizontal types is in the manner of drive. Some can drive one better than the other. Both are guaranteed.



YOUR INTERESTS ARE AT STAKE. WRITE US.

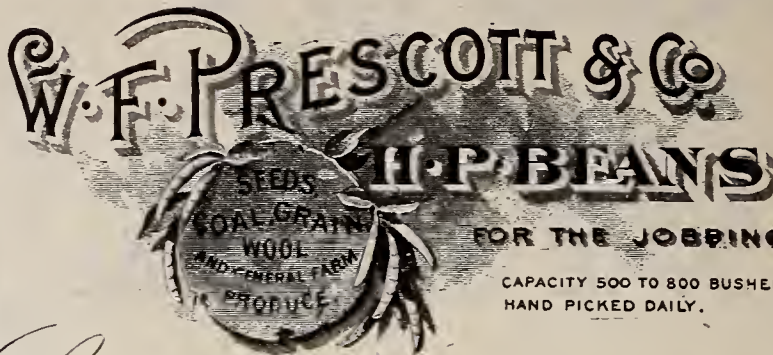
THE S. HOWES CO., Silver Creek, N.Y.



WE USE { UNITED STATES
AND STANDARD } CODES.

W. F. PRESCOTT.

JAS. M. LAUGHLIN.



FOR THE JOBBING TRADE.

CAPACITY 500 TO 800 BUSHEL
HAND PICKED DAILY.

Leslie, Mich.

October 5, 1895.

Ferrell, Prame & Ozier:

Saginaw, Mich

Dear Sirs:-In reference to the new mill of yours we are using, would say: Since setting up your special Bean Cleaner we have used it 4 weeks, and have cleaned 12,000 bushels of beans ready for the pickers, and consider it the best arrangement for cleaning and grading beans that we have seen, and requiring but a trifle more power than the No. 5 Clipper.

Yours Respectfully,

W. F. Prescott & Co.

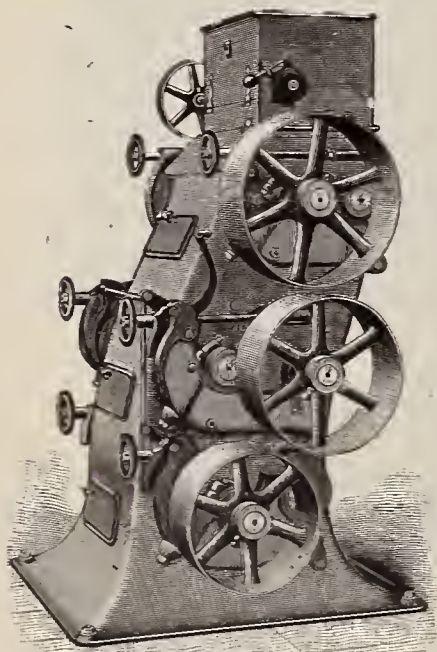
Our machines clean all kinds of grain, seeds and beans perfectly, without attachments. Write us.
FERRELL, PRAME & OZIER, Saginaw, Mich.

NORDYKE & MARMON CO., Indianapolis, Ind.,

Flour, Corn and Elevator Machinery,

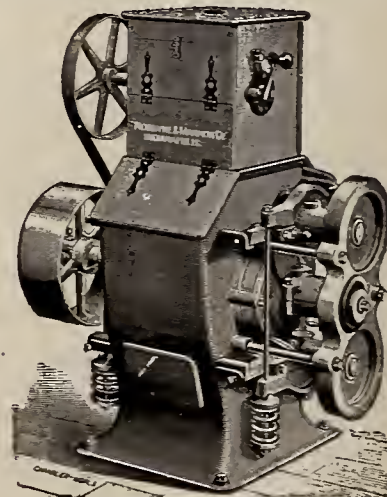
QUALITY TO SUIT THE MOST EXACTING.

PRICES TO SUIT THE TIMES.



Three Pair High Six Roller Mill.

<i>Corn Shellers,</i>	<i>Hangers,</i>
<i>Grain Cleaners,</i>	<i>Boxes,</i>
<i>Flour and Bran Packers,</i>	<i>Gearing,</i>
<i>Flour Feeders and Mixers,</i>	<i>Belting,</i>
<i>Portable Buhr Mills,</i>	<i>Steel Conveyors,</i>
<i>Hominy Mills,</i>	<i>Wood Conveyors,</i>
<i>Wheat Heaters,</i>	<i>Link Belt,</i>
<i>Scales,</i>	<i>Sprocket Wheels,</i>
<i>Shafting,</i>	<i>Engines and Boilers,</i>
<i>Pulleys,</i>	<i>Water Wheels,</i>
<i>Elevator Supplies.</i>	



Three-Roll Two-Break Corn and Feed Mill.

TEN SIZES and STYLES of ROLLER, CORN and FEED MILLS.

No doubt about the volume of our voice if price and merit talk, and what we say will be interesting if you intend to buy.

Write Us Saying What You Want.

NORDYKE & MARMON CO., - INDIANAPOLIS, IND.



J. B. DUTTON'S Patent Automatic Grain Scale.

FOR USE IN
ELEVATORS, DISTILLERIES, MALT HOUSES, FLOUR MILLS, ETC.

ACCURATE AND RELIABLE AT ALL TIMES. SCALES SENT ON 30 DAYS' TRIAL
SEND FOR CIRCULAR AND PRICE LIST.

ADDRESS:

J. B. DUTTON, 1026 and 1028 Scotten Ave., DETROIT, MICH.

CONVEYING, ELEVATING,
AND
POWER TRANSMITTING
MACHINERY.



CALDWELL STEEL CONVEYOR.

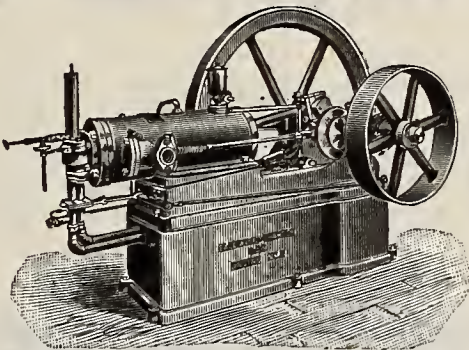
Manufactured exclusively by us at Chicago, with latest improvements.

AUTOMATIC POWER GRAIN
SHOVELS.
SOUTH BEND WOOD SPLIT
PULLEYS.

H. W. CALDWELL & SON COMPANY,

127, 129, 131 and 133 W. Washington St.

CHICAGO, ILL.



SPROCKET WHEELS, LINK BELTING, ELE
VATOR BOOTS, BOLTS AND BUCKETS,
SHAFTING, BELTING, HANGERS,
PULLEYS, GEARS, CAR
PULLERS, ETC.

AVERY SEAMLESS STEEL
ELEVATOR BUCKETS.



CALDWELL CHARTER GASOLINE AND GAS ENGINES.

2 TO 75 ACTUAL HORSE POWER.

These engines use gasoline from tanks lower than the engines. They are
simple, reliable and safe. We build them substantially, of best
material, and we know they are the best engines made.

PLEASE SEND FOR CATALOGUE.

CALDWELL CORRUGATED SEAMLESS
STEEL ELEVATOR BUCKETS.



Going to Buy a Scale?

If so, read a few opinions of Prominent Elevator People on the Merits of
the Demuth Check Beam.

C. A. PILLSBURY, Prest.

G. W. PORTER, Treas. and Mgr.

K. R. GUTHRIE, Secy

ATLANTIC ELEVATOR COMPANY, Incorporated.

GENERAL GRAIN DEALERS. Elevators on Minneapolis, St. Paul and Sault St. Marie Ry.
J. A. DEMUTH, Esq., Oberlin, O. MINNEAPOLIS, MINN., May 25, 1893.

DEAR SIR:—Replying to yours of the 22d, would say that we have the Check Beams on twelve (12)
scales in our Atlantic "A" elevator, and like them very much. We find them a valuable check on the
weighman, and good for reference to check up with. Yours truly, K. R. GUTHRIE, Secy.

NEW YORK CENTRAL LIGHTERAGE CO.

NEW YORK CENTRAL ELEVATORS.

Gibson L. Douglass, Mgr.

WEST SHORE ELEVATOR.

1 and 3 Beaver Street.

J. A. DEMUTH, Esq.,

NEW YORK, May 26, 1893.

DEAR SIR:—We are using nineteen "Check Beams" on the _____ scales at N. Y. C. & H. R. R.
elevator, and sixteen at the West Shore R. R. elevator. Have discovered a number of errors through
their use during the past two years, and consider them a good thing.

Yours truly,

G. W. PHILON, Supt.

ARMOUR ELEVATOR CO., Rooms 1111 and 1112, 205 La Salle Street.

Elevators on C. M. & St. P. Ry., and C. B. & Q. Ry., Chicago.

Total Capacity 9,000,000 Bushels.

J. A. DEMUTH, 40 Elm Street, Oberlin, Ohio.

CHICAGO, May 26, 1893.

DEAR SIR:—Yours of the 22d inst. in reference to Check Beams in use on our _____ scales.

Would say that we have in use 35 of the Check Beams on scales at our elevators, and consider them
invaluable for accurate weighing. Yours very truly, ARMOUR ELEVATOR CO.

PADDOCK, HODGE & COMPANY,

29 and 30 Produce Exchange.

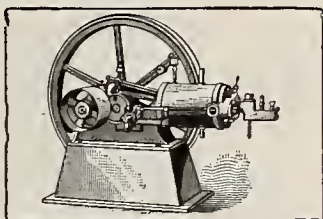
GRAIN MERCHANTS.

TOLEDO, OHIO, June 28, 1893.

J. A. DEMUTH & CO., Oberlin, O.
DEAR SIR:—In reply to your favor of a recent date: We have had our _____ scales supplied
with your double entry system since last November, and in errors detected and corrected, for and
against us, it has more than paid for itself, to say nothing of the satisfaction of knowing that our
weighman's entries are absolutely correct after they have been balanced up by your system.

Dictated by J. H.

Yours truly, JAMES HODGE, Secy. and Treas. Toledo Elevator Co.



The Simplest Gasoline Engine.

OTHERS CLAIM IT. BUT WE HAVE IT!

THE

Cheapest Power on Earth.

But we'll ship it to the other place if you want it, as it works equally well
there or at the North Pole! Elevator men cannot do without it, neither can you
if you need power. Write for catalogue, stating size you want. Made any
size from 1 to 100 H. P. Address,

KEYSTONE IRON WORKS, Fort Madison, Iowa.

THE ACCIDENTS OF LIFE



membership fee. Has paid over \$600,000.00 for
accidental injuries.

Be your own Agent.

NO MEDICAL EXAMINATION REQUIRED.

Write to T. S. QUINCEY,
Drawer 156, Chicago, Secre-
tary of the Star Accident
Company, for information
regarding Accident Insur-
ance. Mention this paper.
By so doing you can save



What a place to read! What a subject to read!
It pays beyond almost anything else to spend
a little time, at home, reading business law.
You will also find it interesting, if you read it

BUSINESS LAW

Plain and to the point, it is always brimful of
money, time and trouble saving information.
Try it 3 months for **25 CENTS.**
Address BUSINESS LAW, 112 Clark St., Chicago, Ill.

GRAIN JEWELS

The Monitor Dustless Elevator Separators.

During the last five years all of the leading cleaning elevators built in the United States, with but two exceptions, adopted the **MONITORS**.

COMMENTS ARE UNNECESSARY.

The Monitor Oat Clipper.

This machine has no superior—in fact, no equal. It has only to be tried to demonstrate its value. Where oats are handled it is a necessity. It has many points of vantage over all other makes.

1st: IN QUALITY OF WORK.

2d: IN SAVING OF POWER.

SMUTTY WHEAT.

The Spring wheat crop this year is a very smutty one, and it is a problem with grain handlers how best to handle it. We offer a machine for this purpose that will do the work, and do it in such a thorough manner that it will appeal at once to the business sense of

EVERY ELEVATOR OPERATOR.

This is the most profitable machine ever placed in an elevator where smutty grain is received.

The Monitor Malt Cleaner

Is the only satisfactory machine made that will economically clean malt.

IT WILL NOT INJURE THE MOST TENDER MALT.

These machines are all *Jewels of the First Water*, and you will find it to your interests to write us for particulars.

HUNTLEY MANUFACTURING COMPANY,

SILVER CREEK, NEW YORK.

A. F. SHULER, Northwestern Agent, 420 Third Street South, Minneapolis. Minn.

U.S. DEPT. OF AGRICULTURE
RECEIVED
OCT 21 1895
LIBRARY
BUREAU OF STATISTICS



A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY,
(INCORPORATED.)

VOL. XIV.

CHICAGO, ILLINOIS, OCTOBER 15, 1895.

No. 4.

{ ONE DOLLAR PER ANNUM.
SINGLE COPY, TEN CENTS.

PUBLIC ELEVATOR MEN BUYING GRAIN.

The Chicago Board of Trade proposes to determine officially whether the elevator men are violating the compromise agreement made in the summer of 1895. It was a part of that agreement that public elevator proprietors should not buy grain in the country at non-competing points or ship contract grades of grain from their houses. It has been common report that both these provisions have been violated both in spirit and letter ever since the date of the compromise agreement. It has been claimed that at least two of the elevator concerns have been making bids at all points on their railroad lines irrespective of their classification into "competing" and "non-competing." It is also claimed that the elevator men are openly offering contract corn and oats in the East and have practically driven the shipper, who has no warehouse or warehouse charges as a margin of operations, out of business. At the directors' meeting the public report of the violations of the compromise agreement was turned over to the Warehouse Committee for investigation. This committee consists of Messrs. Ross, Hill and Kroeschell. The committee was supplemented by Directors Waters and Crocker. The rule concerning the matter is as follows:

And furthermore, the proprietors or managers of such warehouse shall be required to sell their regular contract grades of grain or flaxseed in the Chicago market only, and shall not ship any grain from any regular warehouse of which they are proprietors or managers except those grades which are denominated and understood to be "off grades;" provided, however, that the board of directors of the Board of Trade may, upon application, grant to such elevator proprietors or managers the privilege of shipping such quantity of grain from their elevators as will sufficiently relieve

such elevators from being overloaded or as will maintain the condition of such grain; and furthermore, the proprietors or managers of such warehouse shall be prohibited from buying grain at any non-competing points. All complaints against elevator proprietors under this section shall be heard and decided by the



WM. BRADSHAW'S NEW ELEVATOR AT WORTHING, S. D.

board of directors of the Board of Trade of the City of Chicago.

The success of the Illinois Grain Dealers' Association in the fight for public weighmen in Chicago elevators proves that a grain dealers' organization is not useless when it has competent managers. The trade is sorely in need of more associations which will actively champion the interests of the dealers.

NEW ELEVATOR AT WORTHING, SOUTH DAKOTA.

The crops of the Northwest have been unusually large this year and as a consequence the number of new grain elevators erected has been greater than usual. We give herewith an illustration of a new elevator at Worthing, S. D., the property of Wm. Bradshaw. It has a capacity of 18,000 bushels with car loading capacity of 2,000 bushels per hour. The driveway, a good view of which is shown in the illustration, is 12 feet in width. The cleaning capacity of the elevator is 300 bushels per hour and the elevator leg has a carrying capacity of 700 bushels per hour. The dump pit has a capacity of 300 bushels. The wagon scale is located at the opposite end of the driveway and adjoins the dump.

The office and engine room are located next to the dump house. The floor of the office is on a level with the dump house floor, while the engine room is 6 feet lower and the engine rests on a stone foundation. The belt from the engine runs under the delivery house floor to the drive shaft. Power is furnished by a 5-horse power Sterling Charter Gasoline Engine. The cleaner and elevator are operated at the same time.

The elevator is very conveniently arranged for handling grain and has elicited praise from all grain men who have had an opportunity to see it in operation. A novel feature of the elevator is that access is gained

to the upper floor from the outside of the elevator. Since its completion the elevator has been kept busy receiving grain.

Cooper well your cars.

The vendor of goods, in order to rescind a sale on the ground of fraud, must exercise his election to rescind within a reasonable time after the discovery of the fraud.

STORAGE OF WHEAT.

[Paper read by Charles Rouzer of Nashville before the Tennessee Wheat Convention.]

Upon the opening of the car door preparatory to the storage of wheat received at public elevators or warehouses, the first thing that meets the eye is a little white slip of paper which tells in a few letters and figures all about the contents, and is a guide to the warehouseman as to the proper disposition of the wheat offered for storage. These tickets or slips have read this year more frequently than anything else N. E. G. Rarely they are marked No. 2, sometimes No. 3, and occasionally No. 4; all more or less qualified with the letters T. S. B. or W. B., also giving the weight of the wheat per bushel.

One young man when asked as to what N. E. G. meant, said it was "no earthly good." While this in some instances is far from being correct, yet in others during the present season it is not so very far wrong from a dealer's standpoint. N. E. G., in other words, indicates that the wheat is of "no established grade." It may be better than a No. 3, and because it is slightly tough or damp will not pass for a No. 2, or it may indicate it is a lower grade than a No. 4, so bad, in fact, that it is not fit for milling. Such wheat must be sold on its merits by sample, as this is the only way the buyer can judge of its worth.

But we will not pursue the subject further. I only mention it thus far to show the relation between grading and storing. The grade ticket, as I said, denotes to some extent to the warehouseman the course he must pursue in taking care of the property entrusted to him. If it is dry wheat and in good condition when received ordinary care in the handling will suffice to properly serve all interests. If it grades tough or damp more care and watchfulness must be expended.

A conscientious public warehouseman would much rather lose money from his pocket than turn out wheat from storage in a damaged condition, even though he may not be directly responsible for such damage. His money may be regained, but a warehouseman's reputation is his greatest capital, and when once impaired his usefulness is very much curtailed, and he is as quick to recognize this fact as any of his patrons, hence his care and watchfulness of all property entrusted to him. He constantly endeavors to handle wheat to improve it. In fact, this is what is expected of him, especially such seasons as the present one.

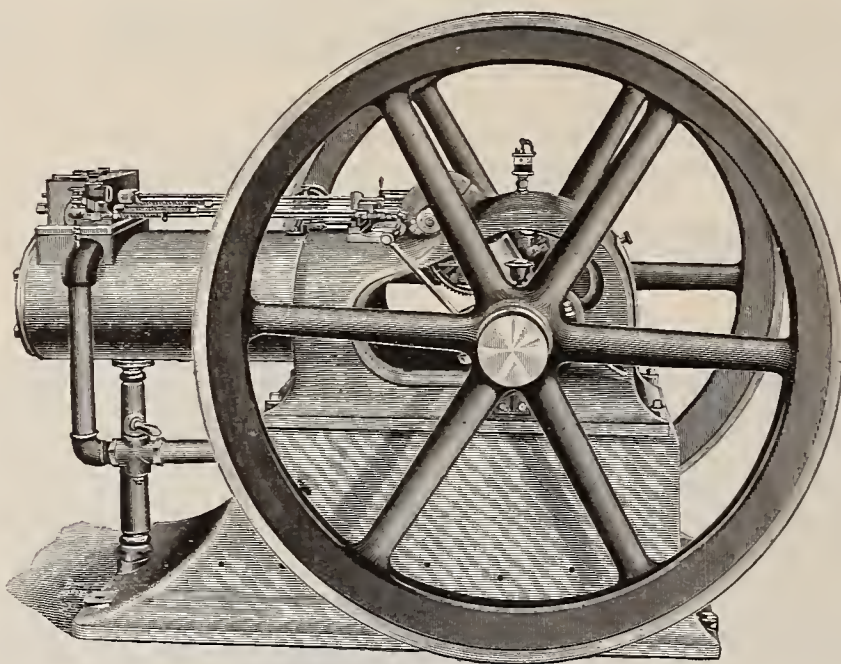
The crop of Tennessee this year is estimated by some statisticians at 5,000,000 bushels. One cent per bushel for this crop would be \$50,000, and at 5 cents \$250,000. This year we presume it is fair to say, so far as our obligation goes, that not over 15 per cent. of the crop has graded dry wheat. This means that 85 per cent. of the crop has found a market at a depreciated value; or, in other words, if the farmer could have properly stored his wheat either in his own granaries or in public elevators, and have allowed it to properly cure, he would have realized from 5 to 10 cents per bushel more for his product. And this means many thousands of dollars to the wheat farmers of Tennessee.

It is a duty that every man owes to himself, his family, and his state to do the best he can in any avocation he may choose to follow, and it seems to us to be doubly so in the case of the farmer. What does it profit a man to spend eight or nine months of the year growing a crop, putting his best efforts and knowledge into the work up to the point of thrashing, and then after his wheat is cut and thrashed, lose much of what he has already gained by improper care, and sell it before it is ready for market? You may answer that he has no place to store his wheat, and is obliged to sell it for what it will bring. To this I would say, his wheat must go to market, and instead of selling it for what it will bring in bad condition, send it to a public warehouse and hold it until such time as it is in proper condition. Again you say, he needs money, and this is his only available means of realizing same. Again I will reply that wheat in

hands of a reputable public warehouseman is first-class security, and any bank who is familiar with such a warehouseman's methods will not hesitate to make a loan on a small margin, using his negotiable warehouse receipt as collateral security. Or in many instances the warehouseman will make advances himself.

Wheat must be sent to market, and when once placed in an elevator the farmer's care ceases, and any time after such time as is required to cure it, which may be ten days or may be thirty days or more, it is ready for sale.

A farmer should not, in fact, consider his crop is ready to offer until he has brought it to the best possible condition. Of course he cannot always make a No. 2 wheat; conditions often beyond his control may make this impossible; but very often carelessness, or a proper appreciation of conditions governing the making of the price, caused considerable loss to the farmer. I have in mind one case that illustrates my meaning. A very fine grade of wheat, dry and heavy, was loaded into a car for shipment, and would have brought the very best price then being offered, had not it been ruined at the very last moment by finishing with a wagon load of smutty wheat. The party loading this car remarked when questioned, that he thought inasmuch as the balance of the lot was so good this one lot would not make any difference. Had he taken the trouble to have sacked this one lot and



THE DAYTON GAS ENGINE,

sold it separately, it would have paid him a handsome dividend for his trouble.

Under such conditions as prevail this present harvest the storage of wheat is a necessity to the farmer who fully completes his crop, that is to say where the crop has thrashed out damp. When it is taken from the thrasher clean and dry there is of course no necessity for storage, and is ready to offer, as the farmer has done his best, unless in his judgment there is an advantage to be gained from holding for better prices, and in that event it should be sent to public warehouse or elevator where it will be available at any moment, and be on the spot to take advantage of any condition affecting prices, and where delivery can be made promptly. In fact at other markets we believe it is very generally the custom for wheat to go first through a storage period before finally reaching the consumer.

No business of importance is without a national organization, except the grain trade. It lacks not abuses and impositions which need reforming and customs and practices which need abolishing, but it does lack a few aggressive, progressive and energetic leaders who will point out the way and induce the dealers overcome with apathy to lend a helping hand.

Do not entrust the building of your elevator to an irresponsible country barn builder, or you may have to pay for the construction of two elevators. Many of them fall in a heap as soon as they are loaded with grain. There are a number of reliable elevator builders who have made a study of the proper construction and arrangement of grain elevators, so there is no excuse for patronizing the Cheap John builders.

THE DAYTON GAS ENGINE.

The Dayton Gas and Gasoline Engine, which is claimed to be the latest and most improved engine on the market, is built of the best material and workmanship, and it is claimed that it will do its work regularly and easily, running almost noiselessly. There has been more or less of an effort made to turn out an engine which can take an explosion regularly, governing the amount of explosive mixture, rather than governing the number of explosions. The Dayton Company claims that it can adapt a simple device to any of its engines, which accomplishes satisfactorily this object.

The general outline of gas engines is about the same in every make. The difference lies in the adaptation of fundamental principles. Some engines are built with the working parts all on the side, worked by a lateral shaft, others cluster their valves, springs and governor on the cylinder head. It may be of small import where those parts are located on the engine, but the Dayton Company claims for its engine greater simplicity in handling its working parts, which are all located on top of one cylinder.

The valves are of the poppet type, and each valve is worked positively and directly from the cam shaft, by means of a separate stem with double bearings keeping them in perfect alignment. This engine does not use a carburetor or vaporizer, but takes the gasoline directly from the tank, which is lower than the inlet to the engine. This is also done without the use of pumps or other device which may complicate the working of the engine. It has its crank shaft covered, as is shown in the cut.

The mixture of air and gas is fully accomplished before they enter the cylinder, and the cylinder and explosion box are both water jacketed, without having any packing whatever between the cylinder and water chamber. Should it ever become desirable to throw a belt on or off the main pulley, the speed of the engine can be reduced almost to a stopping point, the belt can be replaced, and the engine speeded up again without stopping. This engine can be arranged to increase or diminish its speed at will, while the engine is running, and it will continue to run at that speed until another change is desired.

Either gas or gasoline can be used through the same apparatus, and either kind of fuel may be shut off and the other turned on while the engine is running. The fuel

consumption is from sixteen to twenty feet of natural gas an hour per horse power, or three-fifths of a pint of gasoline. In testing these engines, they are not bolted or in any other way fastened to the floor, a full load being suddenly thrown on and off, without making any appreciable difference in the running of the engine, except in the variation of the number of explosions. The engine is built for electric ignition, but can easily be changed to tube ignition whenever it is preferred. This company will take pleasure in exhibiting its engine, and prove that it is all they claim for it.

TO PROSECUTE ELEVATOR MEN.

The efforts of the South Dakota Railroad Commissioners to place their office on a paying basis is creating considerable consternation among elevator men all over the state. Under the state law every grain elevator is required to pay a license fee of \$1 for doing business, and failing to do this, a penalty of \$100 per day is attached for every day's violation of the law. There are over 500 elevators in the state, of which only about one-half have applied for or taken out licenses. The commissioners propose to start out after the next ten days to collect evidence against the violators, which will be turned over to the Attorney General for prosecution.

Farmers in Southern Illinois have found a substitute for corn, something which chinch bugs will not destroy. It is the cow pea, and it is said to be such a splendid feed for hogs, cattle and horses that it will largely take the place of wheat and corn.

PUBLIC WEIGHERS FOR CHICAGO ELEVATORS.

The crusade against the weighing of grain received at Chicago elevators by private weighmen, which was started by the Illinois Grain Dealers' Association, has been a splendid success and the Association merits much credit for the work it has done to secure correct weights for country shippers.

As was announced in our last number a committee from the Association met a number of the receivers in Chicago, told them of the outrageous shortages occurring in grain shipments to the metropolis and explained what they desired done to remedy the loss.

The Receivers' and Shippers' Association of Chicago immediately took up the matter and worked earnestly to secure the desired reform. Country shippers kept protesting against the shortages occurring under the old system and against the weighing of grain by buyers and private weighmen. The Chicago receivers kept the matter prominently before the trade by discussing methods of securing public weighers at all times, and at a meeting of the Receivers' Association the following resolution was adopted:

Resolved, That it is the sense of this meeting that official Board of Trade weighing should be had at all public and private warehouses, as well as in other industries, and that a committee of five be appointed by the chairman, whose duty it shall be to call upon all proprietors of such warehouses and industries with a view to obtaining their consent to such official weighing, and that the committee be further instructed to secure the coöperation of all receiving warehouses in establishing a universal system of official weighing in the city of Chicago.

President John Hill Jr., of the Receivers' and Shippers' Association, immediately appointed a committee composed of Edward S. Jones, C. L. Dougherty, A. L. Somers, Frederick Dickinson and William M. Eckert to prepare agreements and get the different warehousemen to sign them. An agreement was prepared for the regular commission men to sign and another for the elevator men. Still another for the general buyers of grain was prepared and sent to such buyers as the sugar refinery and others, together with a letter notifying them of the action taken by the receivers and asking for their signature. The agreement sent to the sugar refinery was as follows:

We, the undersigned, buyers of grain and flaxseed on the Chicago Board of Trade, hereby agree to furnish regular official Board of Trade weighmaster's certificates for all grain and flaxseed purchased by us, and we also agree hereby that the expense of such official weighing of such grain and flaxseed shall be equally divided between the buyer and seller.

Very few refused to sign the agreement sent to them. Encouraged by this success, the Receivers' Association presented through its president an amendment to the rules of the Board of Trade to the Board of Directors as follows:

Rule 22, Sec. 1. In all sales of grain or flaxseed by carloads for future delivery a carload of oats shall be deemed to contain 1,000 bushels; of wheat, corn, rye and flaxseed, 625 bushels; of barley, 700 bushels. In case property of any kind is weighed by a public or disinterested weigher and is paid for in accordance with such weights, the cost of such weighing shall be borne by the seller, provided such cost does not exceed 15 cents per car; should such cost be in excess of 15 cents per car it shall be divided equally between the buyer and seller. It shall be the duty of members of this board, or of firms or corporations represented in its membership, acting as commission merchants in the sale of grain or flaxseed on the Chicago market, or acting as purchasers of grain or flaxseed at country points, when Chicago weights are the basis of settlement, to furnish the consignor or seller, as the case may be, a public or disinterested certificate of weights; the proportion of the cost of such weighing paid by the commission merchant or purchaser shall be charged to the consignor or seller.

The amendment was approved by the Board of Directors and after being posted ten days was adopted by a vote of 446 to 12.

The only buyer of importance on the Chicago market who has absolutely refused to employ the services of public weighmen is the very one who has been the worst offender in the matter of short weights. This buyer is the Chicago Sugar Refinery, which buys a large quantity of corn every day. A number of the large receivers have repeatedly had trouble with the weights reported by this company and some of them will not sell to it. Many of the country shippers

have given strict orders not to sell consignments to the Sugar Refinery Company.

Nearly every receiver has had a set-to at some time or other with the sugar refinery over weights. The concern buys more corn than any of the other local industries. It takes from thirty to forty cars of corn a day, and if straightforward statements from the best people in the trade count for anything there is an average shortage of 300 to 400 pounds to the car. Taking the lower estimates of thirty cars a day and 300 pounds to the car the shortages would amount to upwards of 5,000 bushels a month.

A year ago the receivers agreed together, as protection to themselves and their country customers, not to sell to the refinery at all. They were not organized so thoroughly then as now, and as several broke their agreement the plan failed.

Receivers are acting in unison now and the hundreds of letters from the country indicate shippers will support any proposition to refuse to trade except on Board of Trade weights.

The contention between the receivers of grain and the refinery has been of long standing. Three years ago the complaints of refinery weights became so gen-



JOHN HILL JR.

eral a Board of Trade weighman was put in charge of the house. The expense of weighing was borne jointly by the receivers of grain and the sugar company. After about a year's trial of this system the refinery refused to pay its half of weighing charges. The receivers, remembering their difficulties on the question of weights, assumed the payment of the expense connected with keeping a Board of Trade weighman at the work. Finally the refinery officials refused to have a public weighman.

At one time the Sugar Refinery Company found it so difficult to buy all the corn it wanted in the Chicago market that it attempted to buy direct from the growers, but failed to make any convenient arrangement, so stopped buying of the farmers and returned to the Board of Trade.

Country shippers should insist upon their grain being sold according to the shippers' weights or that of the official weigher in Chicago.

As many of the warehousemen who employed private weighmen until recently are now having their old weighmen sworn in as public weighmen for duty at their houses, it might be well for Public Weighmaster Walker to change his men around to the different houses now and then.

Clover seed in Northwestern Ohio is getting to be a very uncertain crop. In Wood County this year small clover has been almost a complete failure and mammoth is not more than 20 to 30 per cent. of a full crop.

JOHN HILL JR.

Much credit is due for the success of the fight for public weighmen in all of the Chicago grain elevators to John Hill Jr., president of the Grain Receivers' and Shippers' Association of Chicago, who took an active part in the campaign and pointed out the way the trouble could be remedied.

Next February he will have seen twenty years' service among the sample tables of the Chicago Board of Trade. He has paid close attention to the receiving business and naturally is jealous of anything that tends to restrict or cast discredit on that most important branch of the grain trade.

No one has played a more important part in the fight than has John Hill Jr., a member of the Board of Directors and of the Warehouse Committee. Mr. Hill is 39 years old and was born in Peru, Ill. In infancy he came to Chicago with his parents. He afterward attended the high school and then entered the office of W. G. Purdy, then cashier of the Chicago, Rock Island and Pacific Railway Company, where he served three years. For five years, beginning in 1876, he was with McLandburgh & Co. in their grain commission business. He began business for himself in 1881, and eight years later formed his present firm of McCourtie, Hill & Co. Previous to 1879 he did business on the floor of the Change on a clerk's ticket, but during that year became a regular member.

His first election to a directorship of the Board took place in 1892, and the second term of three years began during the present year. As chairman of the Seed Arbitration Committee, the committee on rules and member of the room, legal advice and warehouse committees he has exhibited unusual ability as a keen thinker, and an aggressive, untiring worker.

Mr. Hill is also president of the Grain Receivers' and Shippers' Association of Chicago. In 1890 Mr. Hill drew up a protest against making warehouses "regular," the proprietors or managers of which were dealers in grain. It was extensively signed, but was tabled by the Board of Directors. As a member of the Board of Directors, in 1894, Mr. Hill called up the tabled resolution and secured the appointment of an investigating committee, which put in many weeks of hard work and made a strong report appealing to the railroad and warehouse commission and to the governor. The results of this appeal are taken by Mr. Hill as a substantial indorsement of his position that a public warehouse should not deal in grain. The fight is nearing a finish and Mr. Hill believes that the course which he has taken will be thoroughly vindicated by the final results.

He was married in 1881 to Miss Nellie M. Graham, and they have two daughters. Mr. Hill lives near Morgan Park, is an ardent Mason and a member of the Royal Arcanum and National Union.

THE CAUSES OF SHORTAGES.

A prominent grain dealer, who has been engaged in the business for a number of years, says: Short weights arise from three causes. First, sometimes miserable grain doors are furnished, and often they are so thin, old and warped that it is with great difficulty a shipper can adjust the doors when loading his car so that it will not spring a leak while in transit. The grain shipper himself is often to blame for carelessly loading his car.

The second cause is the lack of responsibility felt by some of the railroads in protecting the interests of those shipping over their lines, after cars have arrived and been placed on the team tracks for delivery. It is not an unusual occurrence to find cars loaded with grain and unlocked after business hours. Some of the roads provide watchmen, while others do not. It may not be generally known that there are gangs of boys who lay for an opportunity to plunder cars when not watched. Some have been arrested while thieving, but these arrests have been few. We believe the railroad officials of the roads centering in Chicago are ready to protect these cars when the matter is properly brought to their attention.

The third cause is that there are parties who buy outside grain and ship it to private elevators where they do not have the advantage of the official weighmaster.

INTERSTATE COMMERCE LAW SHOULD BE CHANGED.

Some time ago the *Forum* published an article by Aldace F. Walker on "Has the Interstate Commerce Law been Beneficial?" in closing which he points out some changes needed to make the law effective. From it we take the following:

"The time has now come when something must be done. A radical overhauling of the law is necessary. It should be torn to pieces and reconstructed. Some regulation of interstate commerce by a national law is necessary. Experience dictates that such regulation should not be too minute in its details; that it should not undertake to do too much; that it should firmly assert certain fundamental principles, and at the same time should fairly recognize the rights of the railway corporations which represent the capital and the brains that have made our present industrial conditions possible. The leading features of the interstate commerce law, as above enumerated, cannot be claimed to be unconstitutional. Much good has resulted from the attempt to put into practical effect certain principles that all sound railroad men, theoretically at least, approve, and would willingly, each for himself, conform to. More than this, there is need of some system of governmental authority, not only to control the roads, but to protect them—to protect them not so much against the public as against themselves and against each other. The railroads of the United States in many respects are helpless creatures. The natural tendency appears to be to run down the hill into the sea. Their competitors on every side are wont to pick and plunder and pollute them. Their only weapon of retaliation or defense is the reduction of their earnings in the hope that it may injure the others more. They are frequently passing from view as business entities: and let us hope that the United States courts will be able to manage them with uniform satisfaction. Unless the lines that remain are taken in hand by some *vis major*, and new conditions soon applied, they will presently see their net earnings vanish, and the United States government will be managing the consolidated system of American railways, without any expensive purchase, and without knowing how it came about; the practical general managers being the circuit and district judges, operating through experts or lawyers called receivers, and meeting in different judicial districts for frequent conference upon matters of general policy concerning rates, wages and expenditures. This happy result has already been quite substantially attained in the eighth judicial circuit, which embraces Little Rock, St. Louis, Omaha, St. Paul and Denver.

"After all these unsatisfactory years it would not seem to be a difficult thing to draft a much better law than the one which was adopted in 1887. The foundation principles of the interstate commerce law are sound the world over. Their simple declaration has been of general utility. Congress should couple with this the prompt enforcement of civil remedies. A few well-considered money judgments for damages would settle questions rapidly and in the orderly way of the common law. Penalties and forfeitures are obnoxious and practically futile. The penalties in this statute against charging less than the tariff rate are not enforceable against the railway corporations, but only against railway employees and shippers; the sympathy of juries and of the public is naturally with the giving of the lower rate; the courts have declared that no person who is himself subject to prosecution can be compelled to make disclosure of incriminating facts; and the ordinary difficulties attending criminal proceedings are thus intensified to a degree practically prohibitive of success. It would seem wise at once to abandon the unsuccessful experiment of preventing unjust discrimination by personal penalties, and try the alternative expedient, successfully employed in other countries, of authorizing the corporations to divide their traffic equitably. A bureau of railroad statistics and tariffs should be

maintained in one of the departments, and all proper publicity assured. The basic requirements of reasonable and equal rates should be enforced through the right of citizens to sue for the breach thereof, either in the present federal courts or in a tribunal specially organized for the trial and decision of such matters. The carriers also should be accorded equivalent rights and just protection; state regulation would gradually assimilate itself to national regulation in statutes and decisions; and, though the immediate aspect of the law would appear weak and even useless to many who clamor for absolute provisions and despotic restraints, five years' experience would demonstrate its vastly superior efficiency over the present scheme.

"The interstate commerce law in many ways has been beneficial to business interests, but in its present form there is little value now remaining beyond the assertion of important general principles; while in some respects it is more prejudicial than beneficial. It demands both steadiness of rates and active competition, things which, as Judge Cooley once said, necessarily kill each other. It is like requiring boys to play football under a rule forbidding the players to touch one another. The prospect of anything more than superficial action under our present legislative system is unfortunately quite remote. Senators and congressmen appear to regard the subject of our do-



NEW GRAIN AND HAY WAREHOUSE OF S. W. EDWARDS & SON.

mestic commerce as a kind of butterfly net wherewith to entrap the fluttering voter as he wings his way from party to party. Let us hope that public opinion will soon awake to the necessity of action for the preservation of the American railway system."

The merchants of no other class have been more deeply impressed with the futility of the interstate commerce law than the grain shippers, and none know of more unjust discriminations between places and persons than they. None suffer more from the instability of rates than they do. Grain shippers have much to gain by the enactment of a law which will secure stable rates and prevent discriminations, and an appeal to your representatives in Congress might help along the work of reform.

THE WHEAT TRADE OF MINNEAPOLIS.

The statement of the grain business of Minneapolis, for the crop year, embodies some interesting suggestions as to the dominant position of this city in the grain trade.

Noticeable is the fact that, of the 51,317,596 bushels of wheat received here last crop year, less than 7,000,000 bushels was shipped, leaving a vast residuum for grinding, which shows the commanding position of Minneapolis as a grain market and flour center. Chicago's wheat receipts were only 13,000,000 bushels, against 30,000,000 the preceding year; New York received only 22,500,000 bushels, against 34,800,000 last year; St. Louis 8,000,000 bushels, against 14,500,000, and Baltimore, which is drawing the grain traffic from New York, received 6,400,000 bushels, against 9,900,000 last year. Duluth received 32,293,485 bushels, and shipped 24,171,730 bushels, leaving about 8,000,000

bushels for home consumption, the flour product being 3,324,933 barrels, compared with the 9,500,000 produced in Minneapolis.—*Minneapolis Journal*.

NEW GRAIN AND HAY WAREHOUSE AT CHICAGO.

We illustrate herewith the grain and hay warehouse of S. W. Edwards & Son, located at 110-120 North Elizabeth street, Chicago. The building takes the place of the old warehouse at 373-375 Carroll avenue and is of brick, 125x85 feet. It has a capacity of 36,000 bushels of grain, 250 tons of hay, and is situated on the Panhandle Railroad. Grain may be received from and shipped on any road entering Chicago.

The warehouse contains 12 bins having a capacity of 3,000 bushels of grain each. On the first floor is a Racine Dustless Grain Separator manufactured by the Johnson & Field Company of Racine, Wis. Its capacity is 6,000 bushels daily. Power is furnished by a 22-horse power gasoline engine. The firm does a general business in receiving and shipping hay and grain. It is a member of the Chicago Board of Trade and by correct business methods has established a good business among a large number of shippers in the West and buyers in the East. The firm handles all kinds of mill feed and makes a specialty of shipping mixed cars of grain, etc.

In addition to the grain and hay receiving business an extensive feed trade is carried on in Chicago. The firm employs a number of teams and men, and at all hours of the day the loading floor presents a scene of activity. For the accommodation of teams a space has been reserved 40x35 feet and wagons are loaded directly from the platform. The driveway for teams is shown in the two entrances at the left of the building, as shown in the illustration. The side track, which is now completed, runs parallel with the tracks across the right of the warehouse. The offices are large and conveniently arranged and are situated directly at the left of the open driveway.

The business was established in 1870 by S. W. Edwards. S. T. Edwards, his son, was admitted as a partner in 1884, and at the death of the father in 1892 the present firm was formed. It is composed of S. T. Edwards, F. W. Edwards and E. J. Loomis. Each member of the firm is thoroughly acquainted with the grain trade, and good business methods, together with practical experience, have enabled them to build up a very successful business.

ILLINOIS GRAIN DEALERS WILL MEET.

By order of the President and the Board of Directors of the Illinois Grain Dealers' Association, there will be a business meeting of the Association in Decatur, Ill., on Thursday, Oct. 17, 1895, at the council rooms, at 10:30 A. M. and 3 P. M.

Dealers are earnestly urged to attend, as there are very important matters to discuss. In addition to the matter of weights, there are other questions of equal importance. This is just prior to the movement of the largest crop of corn ever produced, and, with other matters, it is important that we meet each other and exchange ideas on all matters of mutual interest.

You are urged to attend and to invite all regular dealers.

Yours truly,

B. S. TYLER,
Secretary.

While in the city grain dealers will make their headquarters at the St. Nicholas Hotel.

Where an article is sold by a formal written contract, which is silent on the subject of warranty, no express or oral warranty made at the same time or previously can be shown, nor can an additional oral warranty be ingrafted upon or added to one that is written, as the written instrument is conclusively presumed to embody the entire contract.

WORK OF THE GOVERNMENT CROP REPORTING BUREAU.

A. L. Russell of New York, writing in the *Northwestern Miller* on the "Discrepancies of the Crop Reporting Bureau," says: The grain trade is completely at sea here over the recent emanations from the department of agriculture on crop reporting. The statement, a short time ago, by Mr. Farquhar, in the *North American Review*, was considered as a semi-official statement that there would be a change in the basic meaning of 100 for the average yield of wheat and corn per acre. The uncertainty which followed this had scarcely been quieted before an interview, purporting to be with Statistician Robinson, lauded the department to the sky over its alleged success in crop-reporting, particularly in regard to cotton.

The claim was made that the cotton reports of the department are much nearer correct than any other system. Nevertheless, the bureau figures, as they are called on the cotton exchange, are not viewed with any degree of confidence by cotton factors, who laugh at the efforts of the bureau and rely very largely on the statements of the *Financial Chronicle*. Early in the year, the department made a preliminary statement on cotton, and, instead of being given out when expected, it was delayed, and the understanding was current in the trade that the total figures for the entire crop then obtained by the bureau was not as much as had already come into sight at the date mentioned. The final report is admitted by Statistician Robinson to be about 500,000 bales less than that of the *Financial Chronicle*. This is an error of over 5 per cent., as the *Chronicle's* figures are considered practically correct, and shows that the department is not up to date, even in its much self-lauded cotton statistics.

The amusement over Statistician Robinson's recent laudatory statements had scarcely grown cold when another interview, purporting to be with Secretary Morton, in which various suggestions are made, was published. He suggests that improvement be made in the method of obtaining the acreage of the crop, believing that the agricultural experiment stations, with their trained corps of employes, could materially help the department. He desires that an accurate estimate of the acreage should be obtained. With an accurate idea of the acreage, estimates of the crop could be closely figured, he claimed, with the weather conditions as reported by the weather bureau from week to week, without causing the wild speculative excitement which, he alleges, follows the monthly report. It is said that he proposes to recommend the abolition of the monthly crop report, on the ground that he does not see the propriety of official "guesses," which may be wrong, but thinks that, with a known acreage and with the weather reports, intelligent students can make an accurate forecast of the forthcoming crops.

The question naturally arises right here, What is the department for? It costs about \$100,000 a year to run the statistical division, and, if the part of its work which should be of value is to be abandoned, why should not the bureau of agricultural statistics be done away with, to a very large extent? The position in which the abolition of the monthly reports would leave the trade would be, indeed, a serious one. At present, the law calls for the obtaining of reports on the first of each month, and their publication on the tenth. The time during which there is any speculative excitement has been, apparently, just previous to the publication of the report, when, for about twenty-four hours, the air has been thick, usually, with alleged tips from Washington, which, in many cases, have been so close as to cause a feeling of un-

easiness as to the possibilities for manipulation which might arise if there should be, peradventure, any real leak at Washington. Many people in the grain trade believe, whether justly or unjustly, that such leaks have occurred. The spring agricultural conference recommended that the monthly crop reports be continued, and that congress pass a law punishing, by fine or imprisonment, any leakage at the department. If this penal feature should be recommended by the secretary and adopted by Congress, perhaps the danger of leaks would be removed.

With the condition of affairs which is said to have prevailed, on a regular monthly report, issued at a fixed date, the question arises, What would be the position of the trade if reports should be made up by the department and issued at pleasure? One result would undoubtedly be that a host of private crop reporters would spring up, who would make money by reporting correct or incorrect conditions, accordingly as they were paid by manipulating cliques, and the air would be full of reports, the false so mixed with the true that it would be impossible to tell, with any degree of accuracy, the actual position. This would be

have been, for several years, expensive errors and a source of reproach, and now it is intimated that the secretary proposes to abolish, instead of reforming them, from his bureau downward to their source.

A NEW OAT CLIPPER.

Elevator operators no longer reap a rich harvest from the grain they handle, as was the case in the past. Competition is keen, and margins close. The old saying that "The longest pole gets the persimmons" can be changed to read, "The best equipped elevator gets the profits." Modern machines are a necessity for modern requirements, and the old style elevators with back number machines are not in it with the latest.

In speaking of grain the average man refers to wheat, and but few realize the immense quantity of oats that are handled every year. Some of our largest elevators make a specialty of handling oats to the exclusion of other grain, and they are very much in evidence as to the desirability of this trade.

Clipped oats are always in demand, and the chances are that there will be a steadily increasing market for them. In connection with this clipping of oats, we present herewith an illustration of a new machine, offered for this purpose. We say new machine for the reason that it has been offered only for the last few months, but at the same time it is old enough to have established a reputation that many machines which have been in use for years would be proud of.

This new machine is called The Monitor, and is manufactured and guaranteed by the well-known Huntley Manufacturing Company of Silver Creek, N. Y. This is quite sufficient to at once stamp it standard, and to predict that it will immediately take its place among the leaders.

The Huntley Manufacturing Company has had the most remarkable success with its Monitor Separators. For the last three or four years, many of the users of the Monitor Separators have desired the company to build an oat clipper that would do this class of work, as well as the Monitor was doing its work.

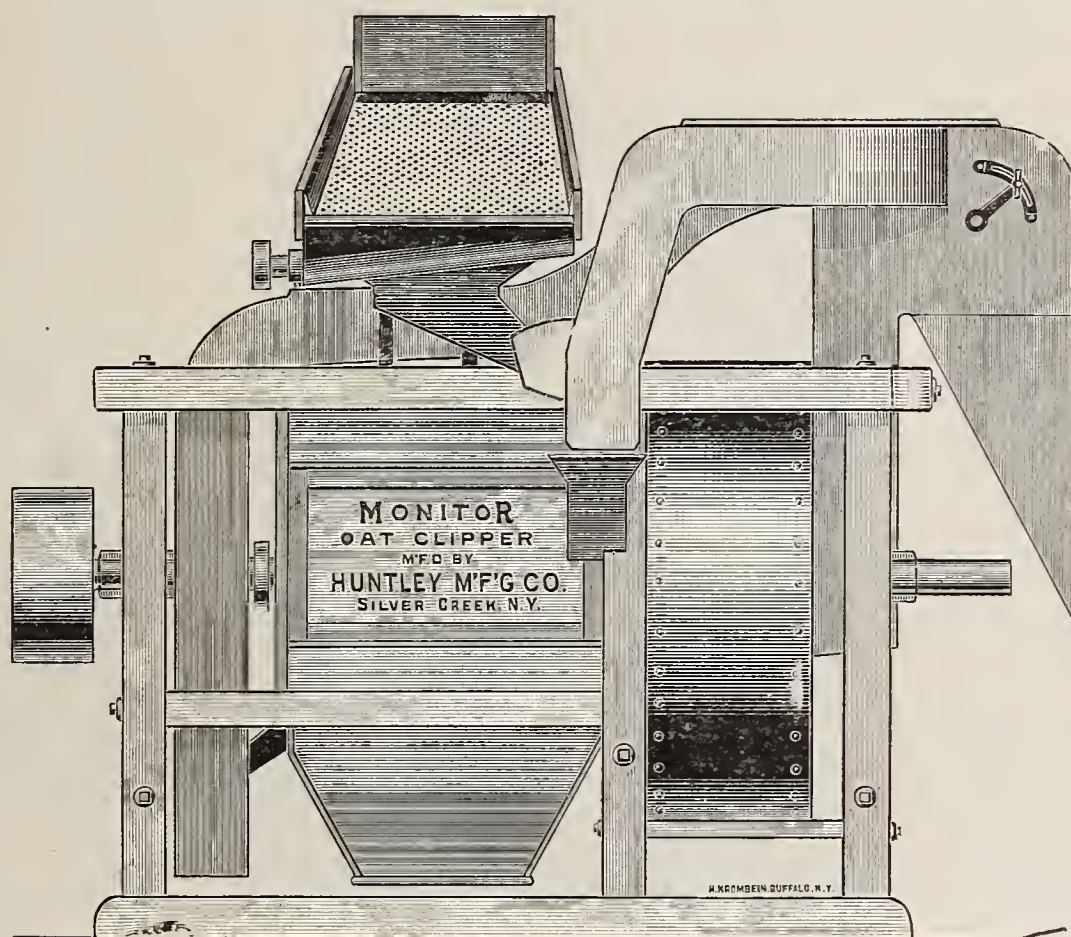
The makers realized what was

required, and spent much time and money in experimenting, and as a result of this are enabled to offer a superior oat clipper for which they make broad claims.

The casing or housing of the machine in many particulars resembles other well-known machines in this line, but the interior arrangement is different in many points. No weak points have been adopted, but improvements essentially their own have been added. The ventilation of the machine is said to be perfect. Parties contemplating adding an oat clipper to their plant will do well to correspond with the manufacturers.

Every year about this time there is trouble at Duluth and Superior from persons stealing grain from cars. Last season some boys were arrested, and one arrest has been made this season.

H. W. Rogers, of the Illinois Seed Company, says much of the shortage in weights arises from carelessness on the part of shippers in loading and much is caused by thieves stealing from the cars while in the yards. The courts have decided that a shipper is not supposed to load his goods, that being the proper work of the carrier, so the shipper should leave it to the carrier. Local freight agents at country points would not be as careful as the shipper, and their freight agents would make more trouble than is experienced at present. If carriers were required to give a clean bill of lading, they would provide good cars and protect them against thieves.



THE MONITOR OAT CLIPPER.

likely to lead to feverish excitement and manipulation at all times. The wealthy operators and the big foreign buyers of grain or cotton would have money to pay for the reports. The little operator, the farmer and the planter, would be entirely at their mercy.

At present, in regard to grain, especially on wheat, it has been pretty closely figured out what the percentage of error is in the official crop estimates. With due allowance for this error, very careful estimates of the crop have been obtainable. The error on wheat was more than twice as large during the past few years, as the error on the cotton estimate last year. The cotton figures are made up covering an acreage, comparatively speaking, of less than 20,000,000, while the total grain acreage the current year was approximately 150,000,000. If the percentage of error on grain could be reduced to the percentage on cotton, it would be a great improvement. The trouble seems to be that the department needs to improve the facilities it has on hand and not abandon means which have been successful under previous careful administration for conditions which would leave the markets a prey to uncertain speculative influences. What is the department of agriculture carried on for, anyway? The meat inspection was to prevent diseased hogs going abroad. What was done with them until pressure was brought to bear on the department and the order issued for tanking the diseased meat? Will the tanking be enforced? What has the seeds division been good for, except to throw money away, or as a personal perquisite for congressmen? Its crop reports

LEGISLATION AGAINST FUTURES.

BY HENRY CROSBY EMERY, IN THE "POLITICAL SCIENCE QUARTERLY."

The purpose of this article has been to show that anti-option legislation is a blow at an essential part of the modern machinery of commerce. It is avowedly an attempt to suppress the short-seller, on the ground that he regularly depresses prices regardless of supply and demand, and thus deprives the farmer of a fair price for his product. If the position taken in this article is correct, the short-seller has no such influence on prices, but is, on the contrary, a necessary part of the speculative system. Under this system prices are determined by the keenest competition of rival dealers. This involves all the evils of business strife under a competitive régime. But no other way of making prices than by competitive buying and selling has yet been devised. The advantage of such determination of the prices of future goods is, once more, that it relieves ordinary trade of its speculative element, concentrating the risks on a single class: while by this means the widest knowledge and keenest intelligence are brought to bear on the direction of productive and distributive forces into their most advantageous channels.

That there are enormous evils in speculation as carried on to-day, in stocks even more than in produce, is beyond all question. It is a desire to see these suppressed that has given popular support to the Hatch and Washburn bills. But these bills strike at the benefits as well as at the evils of the system. The problem of checking the evil while retaining the good is one of the gravest questions with which the people may soon be called to deal. These evils are, in the first place, those arising from the low plane of morality among many brokers and speculators. The system is honeycombed with corrupt practices. The mad desire to turn the market in one direction or another leads to tricks and deals of every degree of dishonesty. "Wash sales," irresponsible "curb-trading," affiliation with bucket shops, rumor-mongering, the secrecy in regard to "unlisted securities" on the stock exchanges, and the scandalous inside manipulation of such securities—these and other practices are a disgrace to the exchanges which permit them to flourish. They are, however, due not to the system, but to the dishonesty of men. How far government intervention would prove a benefit is a grave question. The duty lies primarily at the door of the able and honorable men who form the best element in all the exchanges. If these men cannot control the evils, we may find a repetition of the experiences of the "Granger" railroad legislation. That legislation was costly and disastrous, but it taught the lesson that the people can and will interfere. Whatever the legal status of the exchanges may be, economically they are quasi-public institutions, and as such have public duties. It would be lamentable for them to remain blind to these duties so long as to bring down unreasoning Populistic legislation on their heads.

The other great evil of speculation is its extension throughout the country. It is not the great speculators, but the numberless small speculators, who are the social curse. The record of defaulting cashiers and trustees that comes up from every corner of the land shows how far this evil has extended. To what extent, however, the evil can be overcome by legislation is another serious question.

These questions are assuming great practical importance in Germany, where a recent imperial commission has investigated the whole subject of speculation. This commission is emphatic in its recognition of the commercial necessity of dealings in futures (*Terminhandel*) and of the machinery to make such dealings possible. But it aims at suppressing the real evils of which we have been speaking, without destroying the system itself. Governmental supervision of exchanges is recommended as a possible check on dishonest practices. The interests of the investing public are to be represented on the managing boards of the stock exchanges, and the interests of the producing class on the produce exchanges. All persons trading through brokers on the produce exchanges are to be registered, and brokers are to be held liable for trading for any person not so registered.

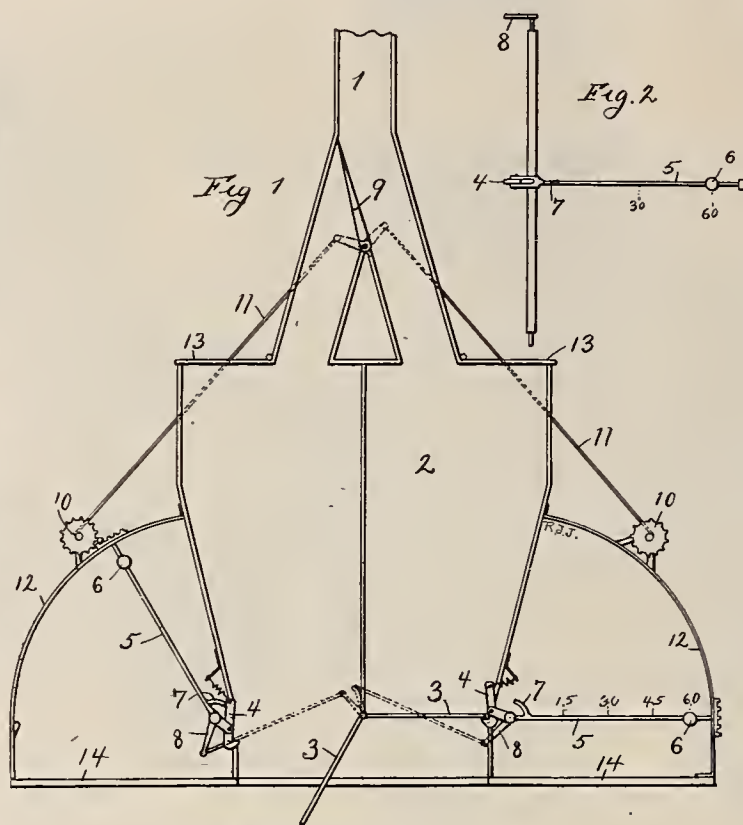
Speculation in behalf of clerks, officials and employees is to be strictly forbidden; also speculation for anyone whose solvency is known to be endangered by the transaction. Brokers guilty of breaking these regulations are to be liable to expulsion or even imprisonment.

The commission itself was by no means unanimous in its belief in the efficacy of such regulations, if put in practice. Still more may the practicability of such paternal measures in this country be doubted. But if a blow is to be struck at the evils of speculation, a lesson may well be learned from the report of this commission. The projected German reform aims at correcting the evils, while recognizing the benefits of the speculative system. The projected legislation in this country embodies a blind attack on the important economic functions of the system. The former effort must arouse universal sympathy. The latter can only call forth opposition and alarm.

[CONCLUDED.]

AN AUTOMATIC GRAIN SCALE.

A scale is, of course, a necessity to every elevator man, and it can be said of a scale, perhaps more appropriately than of any other machine, that the best



AN AUTOMATIC GRAIN SCALE.

is the cheapest. One never sees an elevator without a scale, but does see some with scales that are little better than none at all. We present a drawing of one that is said to be entirely automatic and will do its work satisfactorily. It can be constructed by any mechanic at small cost.

In Fig. 1 is shown the scale, and in Fig. 2 the scale beam and connections, the reference figures in each corresponding to the same parts. At 1 is the spout through which grain goes to the scale. It may be connected with both the receiving and shipping legs or to either one alone. This scale consists of two parts of 1 bushel capacity each, but it may be constructed any size. The scale hopper 2 is 18 inches high, 18 inches long, 9 inches at the top and 6 inches at the bottom. The relief valve 3 is held in position while the hopper is being filled by the catch 4. The catch is on the extension of the scale beam and works on a pivot. It is held in place by a small spiral spring.

The scale beam 5 has a sliding weight 6 attached, the weight regulating the amount to be relieved at each discharge. The balancing of the scale beam when the hopper is full allows the catch holding the relief valve 3 to be thrown by being pressed against by 7, the piece 8 at the same time closing the valve on the opposite hopper. The wheel and connection at 10 and 11 change the valve 9 in the grain spout 1, as cogs on the end of the scale beam pass the wheel as the beam ascends.

As the scale beam ascends the valve in the second hopper is closed, the valve in the grain spout is turned and the weighed grain in the first hopper is dis-

charged. The scale beam guide is shown at 12 and the lid to the hopper at 13. The main frame 14 is 36 inches long, 18 inches wide and 18 inches high, this being the space occupied by the scales when they are in working order. A counter may be attached to indicate the exact number of bushels of grain passing through the scale.

WANT A CLEAN BILL OF LADING.

Complaints of short weight on grain sold in Chicago and coal received at Iowa points from the eastern mines have been so numerous of late among local grain and coal dealers that the following circular signed by T. M. Logan of Little Sioux, president, and F. D. Babcock of Ida Grove, secretary and treasurer, of the Grain Shippers' Association of Northwestern Iowa, has been issued and sent to all members of the organization:

"Complaints of 'short weight' on grain that is sold in Chicago come to us every day, and our own experience tells us that something is wrong in that respect. There is also great complaint from coal dealers that coal shipped from eastern mines or the docks along the lake falls short of invoice weights. There seems but one remedy for this evil, viz.: A bill of lading that calls for the exact weight, and then for the railways to deliver the amount the bill of lading calls for, whether it is grain in Chicago or coal at our stations. To do this the railways should furnish facilities for the accurate weighing of every car of grain shipped or coal, etc., received. No doubt the next legislature will be willing to enact a law that will oblige the railways to put in track scales at all stations, but to bring an influence to bear on them that will accomplish that result will require united effort on your part. And if such effort is to be made, please advise us of your wishes in the matter, and a meeting will be called in due time."

BOSTON'S GRAIN INSPECTORS.

The inspection of grain in Boston is entirely divorced from politics, inspection being made by an inspector and assistant, who are salaried employees of the Chamber of Commerce. As often as once on each crop the Committee on Grain provides samples of the established grades of grain, which are submitted to the Chamber for approval, and no changes can be made in the grades except at a meeting of the association called for the purpose. Fees for the inspection are fixed by the Board of Directors and all revenue accruing therefrom are turned into the treasury.

The inspector of grain and his deputies hold office till the appointment of their successors, but all appointments are subject to revocation by the Board of Directors at any time for causes deemed satisfactory by it. All inspectors are sworn to the impartial discharge of their duties and the inspector is held personally responsible for the official acts of his assistants. Any member feeling aggrieved by the decision of the inspector of grain may appeal to the Committee on Grain, whose decision shall be final as to the grading of the grain. Any damage which may ensue from wrong inspection, as ascertained and awarded by the committee, is subject to appeal to the Committee of Arbitration. Final awards are paid by the Treasurer and charged to the Grain Inspection Department on the certificate of the proper committee.

How well the system works and how few are the complaints arising as to grading is shown by the fact that since January 1 only two such appeals have been entered. The weighing is done by the public weighers, appointed annually by the Board of Aldermen.

Captain William Miles Hazard has written a letter to the *Times* of Georgetown, Ga., in which he says anyone who has ever been outside of the state knows what a horrible mess the cooks elsewhere make of Carolina's delicious cereal—a horrible mucilaginous mess, not recognizable as rice at all, which no one ever seems to eat at all. If the outside world could be given good, properly cooked rice and shown how to prepare it, it seems probable that many would adopt it as a regular article of diet, thereby enlarging the market very considerably.

GRAIN INSPECTION IN WASHINGTON.

The state of Washington now has an established grain inspection department working under the following rules:

RULE 1. The office of the chief inspector of grain shall be open for business from 8 A. M. to 12 M. and from 1 P. M. to 5:30 P. M.

RULE 2. If any railroad company, warehouseman, vessel owner, shipper or any other proper person shall desire the services of any employe of the inspection department for the purpose of inspecting grain or doing other work in his line of duty as such employe on Sunday or on any legal holiday or at night, said party or parties shall apply to the chief deputy inspector of grain for the service of such employe and said chief deputy inspector shall, if in his opinion such necessity exists, for the services thus rendered, require such employe to perform such service.

RULE 3. It shall be the duty of each deputy to keep a complete record of the condition of all cars on arrival coming under his supervision. He shall record the number of all seals broken by him, also the number and description of the state seal substituted therefor. Before breaking the railroad seal for inspection he shall carefully note whether or not it is intact. If there is evidence that it has been broken or tampered with he shall note the same upon his record. He shall also carefully observe whether the end or side doors are open or shut and whether the car is leaking in any part and make his notations accordingly. Deputies charged with the duty of sealing cars shall close the doors and reseal the same with state seals at the earliest practicable moment after the original sampling and inspection has been done. They shall also make a report each day at the office of the chief deputy inspector showing the total number of cars sealed by them and giving a complete record of condition of cars on arrival.

RULE 4. Each inspector shall report in writing to the chief deputy inspector all attempts to defraud under the system of grain inspection as established by law. He shall also report in writing to the chief deputy inspector all attempts of warehousemen to deliver any grain of a lower grade than that called for by the warehouse receipt. He shall also report all attempts of receivers or shippers of grain to instruct or otherwise influence the action or opinion of himself or any other inspector, and the chief deputy inspector shall report all such cases to the chief inspector. Private inspectors and other persons not upon the force will not be allowed in the car during the inspection; provided, however, the consignee or his agent shall have the privilege of examining the car after inspection and before the car is sealed.

RULE 5. When cars of sacked grain are placed at any public warehouse to be unloaded in cities provided for inspection, the chief deputy or deputy inspector shall carefully and thoroughly inspect such grain into such warehouse and shall keep separate each grade found in such car, he shall make a record of the number of sacks of each grade so found and when any grade lower than No. 1 is found the reason or reasons for such finding shall be stated.

RULE 6. After any grain has been duly graded on the track should any private warehouseman, miller or other person who may be unloading it find that in any car there is concealed a poorer grade than is shown at the time of such track grading and that it does not equal the grade there given it by the inspector, he may upon such discovery set out such sack or sacks containing such grain and call for further inspection thereof, and the chief inspector or one of his deputies shall be called in and shall inspect it and make a grade to conform to the character of the grain found. No charge shall be made for such inspection, the same being considered necessary to the thorough inspection as required by the grain inspection law.

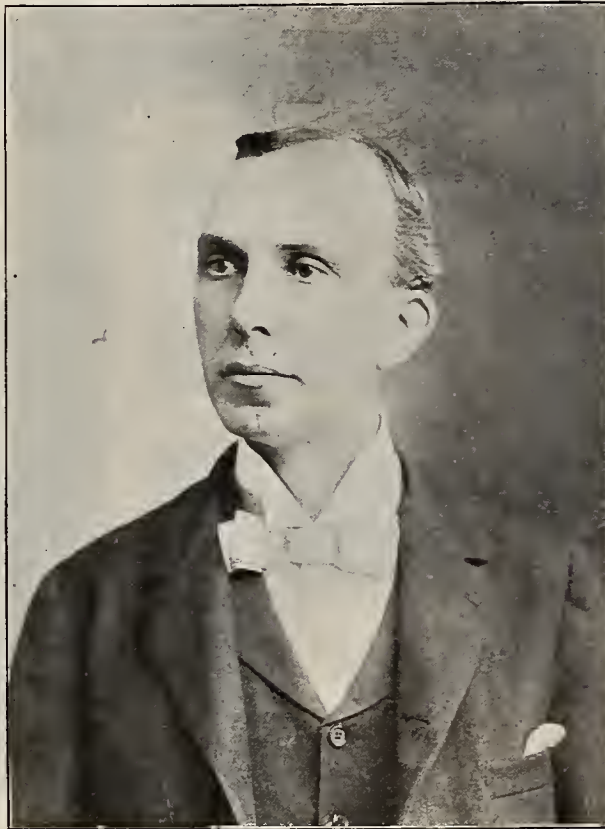
RULE 7. If requested by the consignor or consignee grain billed to points outside the state of Washington which does not pass through any warehouse or mill in transit shall be graded on track, if not unloaded in this state, and thoroughly inspected out of the car, if unloaded in its passage through the cities designated by law for state inspection. Provided always that such grading and inspection does not act as a hindrance to the railroads in the transportation of such

grain and that such grading does not interfere with the prompt grading and inspection of all cars of grain which are consigned to points within the state provided for state inspection. Requests for grading such interstate shipments must be made to the chief deputy inspectors at the cities provided for state inspection which are nearest the point of departure from the state of the grain in question. The application for such grading shall give the number and initial of the car, place and date of shipment, place of inspection and contents of the car. Blanks for making such application will be furnished upon application by the chief deputies.

RULE 8. The fees for inspection of grain shall be 50 cents per car for bulk grain and 75 cents per car of sacked grain, and where grain be shipped by boat 10 tons shall constitute a carload.

GEORGE S. BLAKESLEE.

The new president of the National Hay Association, George S. Blakeslee, senior partner of George S. Blakeslee & Co. of Chicago, has been connected with the hay trade for a number of years and is well known throughout the West. He was born at Paris, N. Y.,



GEORGE S. BLAKESLEE.

47 years ago. When he became of age he moved to Illinois and located at Moline. After shipping hay from this station for several years he moved to Chicago, where he is now engaged in handling hay and grain.

At the organization of the National Hay Association he was elected second vice-president of the Association, and at the first annual meeting held recently in Cincinnati he was elected president.

UNIFORM WEIGHTS IN ENGLAND.

The London *Miller* says: Although the government has postponed for six months the consideration of the farmers' woes, a private member, Mr. Jasper More, who is himself a practical agriculturist, has again resumed his agitation for a uniform weight for the sale of corn and other cereals. The parliamentary committee on this subject, of which he was the promoter a year or two ago, with the elaborate report it produced, will be fresh in the minds of our readers. The very opposite views among the experts examined, which the report of that committee disclosed, are not of good augury for a renewed agitation. The diversity of standards by which wheat and other cereals are sold in our markets is admittedly a reproach on us as a people of business, but it is doubtful whether the country is yet ripe for such a sweeping measure as the advocates of a uniform weight proposed; that is to say, an act of Parliament to compel the use of one, and only one weight on all our markets under coercive penalties.

Points and Figures.

It is said that much Missouri corn is dry enough to shell.

A revised maxim: Fire insurance men are good servants but bad masters.

The fall of elevators this fall has caused a loss of life as well as loss of grain and elevators.

A partner cannot bind the firm by indorsing a note for the accommodation of another person.

Wheat inspected at Winnipeg, Man., from August 17 to September 28 amounted to 514 cars, against 677 cars during the same time in 1894.

The Missouri State Grange, in annual session at Warrenton, has adopted resolutions demanding an export bounty on agricultural products.

Reports from forty growers in seventeen counties of Michigan indicate that crimson clover is not as hardy as the common red clover, though opinions vary.

The Car Grain Association of Buffalo has put the weighing of grain into the hands of the Exchange weighmaster, and the seller pays for the weighing.

Geo. W. Long of Akron, Ohio, has been arrested on a charge of burglary, having been caught in the act of taking a second wagonload of oats from a C., A. & C. car.

Farmers in the vicinity of Fargo, N. D., say that there is a combination among the elevator men, not only to reduce grades, but to freeze out local and independent buyers besides.

The third annual exposition of the Grain Palace of Aberdeen, S. D., was open from October 1 to 5. The attendance was large and the enterprise is thought to have been a financial success.

It is said that mills in Tennessee, Kentucky, Missouri and Illinois, which use No. 2 and 3 soft winter wheat, will have to close by January 1 for want of milling wheat or else grind hard.

A comparison of the national standards of metric measures with the international prototypes is to be made soon, according to the decision of the metrical congress which lately met at Paris.

Michael H. Miley of Oak Grove, Wis., was recently arrested on the charge of embezzling \$1,094.93 while employed by G. W. Van Dusen & Co. as grain buyer at a country point in Beadle County.

Several "eyewitnesses" take affidavit to the fact that R. L. Smith of Fulton, Ky., has harvested 157½ bushels of corn from one acre of land. The one crop nearly paid for the price of the land.

D. A. Martin, grain dealer of Milwaukee, died last August, when it was discovered that for thirteen years he had had two wives, both with children, one family living in Milwaukee and the other in Chicago. They are now disputing the will in court.

"Farmer Hines' Railroad," as it is called, is a scheme of farmers to build a railroad from some point in North Dakota to Duluth for the purpose of transporting their wheat. The company at present has a capital of \$1,000 cash, and expects to have the railroad built in time for the crop of 1896. It would fool some people if that railroad were built.

There was a ballot vote [by the Board of Trade] on the amendment demanding official weights on all grain sold in this market. It was carried by 446 for, 12 against. So much for the agitation started by Illinois Grain Shippers' Association. The trade has met the demand squarely. Come again, Grain Shippers' Association, when you see anything wrong.—*Chicago Journal*. The trade should now see to it that a public weighman is not stationed at one house longer than three months.

Suit has been brought against the Belt Line Elevator Company of Superior, Wis., to compel it to comply with the law of Wisconsin, which provides that elevator companies doing business in Wisconsin shall maintain offices within the state. This is a test case and the outcome will be of some concern to the rival grain interests of Superior and Duluth. The warehouse bill was passed in the interest of Superior grain men and was aimed at the big elevator companies which operate plants in Superior but maintain offices in Duluth and do their trading there.

BUYING GRAIN BY ELEVATOR MEN.

It is the fact that the railroads discriminate to the extent of 2 or 3 cents per 100 pounds against grain that is consigned to merchants in this city. They charge more to bring grain here from points further west and then carry it eastward than they charge for the same grain if it be shipped through this city or around it. Hence there is a standing reason for avoiding the Chicago market except for grain that can be shipped out by lake. The cut-off lines that skirt Cook County on the south, and the through lines which pass nearer to the center of the state, carry grain at rates which are denied to people who would prefer to have the grain come to and go from Chicago if other things were equal.

The elevator men say this condition makes it absolutely necessary for them to bid against their outside competitors, or not handle the grain at all. The commission man of this city cannot get hold of the grain in the face of this competition, and could not do so if the elevator men were to retire from the field. The railroad discrimination would prevent it, and as this difference amounts to more than the charge for the first term of storage the grain hardly would come here even if that charge were remitted. So the elevator men claim that their bidding for grain in the country is not really in competition with local receivers but with men who want to handle the grain without paying any tribute to the trade in Chicago; and, as their houses are built for the purpose of receiving, storing and shipping grain, and would be run at a loss with empty bins, they are forced to bid for grain in the country or retire from the field. Having bought the grain they have to sell it, and so they become competitors with local shippers as well as receivers. But they allege that they really do no injustice to either, because the grain would not come here at all unless they took advantage of their peculiar position to control a part of the business.

It must be admitted that if this statement of the case be approximately correct the elevator men have a strong plea.

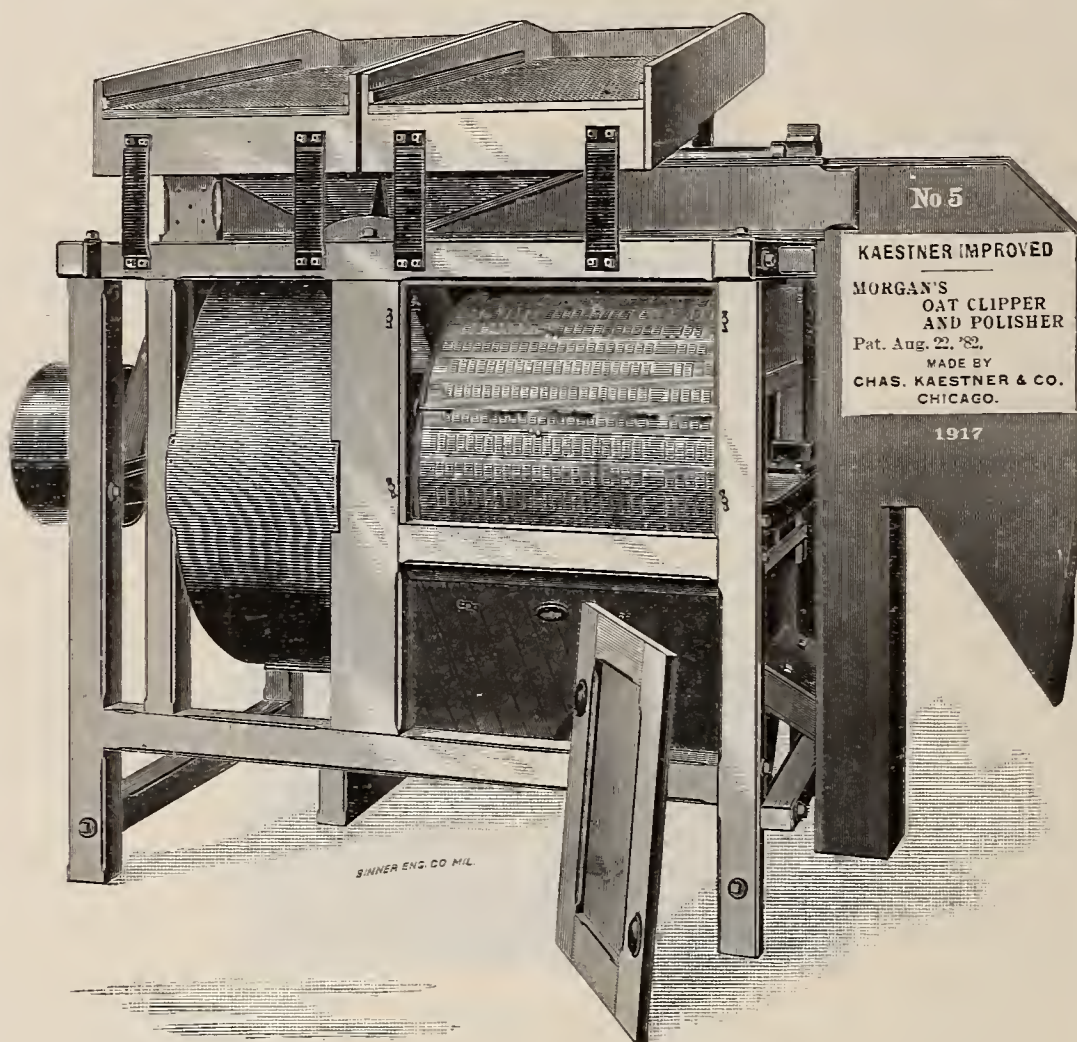
As between two or more sets of persons anxious to buy and sell grain for the sake of a profit, one of whom controls the elevators in this city while the others do not, the great public can have no sympathy other than with the one which offers the best terms to customers. If the elevator proprietors are able to bid more to the producer, and sell more cheaply to the man who ships the property for distribution to consumers than others can do, he will be very apt to furnish an illustration of "the survival of the fittest." Those who cannot compete with him will be forced to retire from the contest, as the sailing vessel has given place to the steamer. But this set of conditions does not and cannot give to the elevator man the right to take advantage of the grading of grain that is stored with him for account of other parties and rob them and the general public by processes which have been termed "skinning." On the contrary, the fact that the ordinary commission merchant is working or trying to work at a confessed disadvantage constitutes the strongest possible reason for seeing to it that the interests of himself and customers are properly guarded. It is notorious that this is not done under present arrangements, and some of the elevator men admit it. Whether or not it would be possible to furnish sufficient safeguards against fraud by men who buy and sell and store grain mixed in with other grain confided to their care as public custodians is an open question. The mere fact that it is

raised by merchants who want to compete with the elevator proprietors does not prove that the answer ought to be in the affirmative.—*Chicago Tribune*.

THE KAESTNER IMPROVED OAT CLIPPER.

The very poor condition in which oats is found in many localities this year has made it necessary to use exceptional care in preparing them for the market. The accompanying illustration represents an improved oat clipper built expressly for the purpose of cleaning and clipping oats.

The machine has a heavy hardwood frame holding at each end a cast iron bridge tree, in which the main shaft rests. To this shaft is attached the fan and also the cylinder, with its beaters. The cylinder revolves in a stationary cast iron scouring case which has oblong depressions on the inside with chilled slots for ventilation. This arrangement gives an uneven scouring case which is at the same time free from all sharp



edges. The case is constructed in sections, called staves, which can be readily removed without taking the machine apart. All of the parts with which the grain comes in contact are made of iron so that the wear is reduced to a minimum.

The oats first drop on a sieve where all sticks, straws and stones or other foreign matter is taken out. The sieve is wide enough to allow the oats to spread out into a thin sheet, giving them an opportunity to pass through the perforations and allowing none to tail over. After passing through the sieve the oats fall into hoppers which conduct them into the case. From here the grain falls onto the rapidly revolving cylinder head, from which it is distributed evenly around in the space between the beaters and the case. The beaters throw the oats into the oblong depressions in the case, whence they rebound back again. In being thrown back and forth between the beaters and the case the oats are thoroughly scoured and clipped. All the impurities are drawn through the slotted openings to the fan. After the grain leaves the case it falls into a suction spout and meets a strong current of air which divests it of any remaining impurities before it leaves the machine.

The oat clipper has a capacity of over 400 bushels an hour and with the oats in first-class condition has handled 500 bushels per hour. The machine has a record of raising oats from 7 to 10 pounds to the bushel and clips them evenly without breaking them.

For further information address the manufacturers, Chas. Kaestner & Co., Chicago.

BUCKET SHOP SPECULATION.

During the past few weeks a number of bucket shops dealing in securities have closed their doors in the United States, owing to the steady upward movement in values, which demonstrates that as long as the market goes against the majority of their customers they do a flourishing business, but no sooner does the market go in favor of their customers and they are called upon to pay out profits than they close their doors with the excuse that they are no longer able to carry out their contracts, owing to their New York agents having advised them of their suspension. An amusing though aggravating incident occurred some time ago in reference to the New York agency of a Montreal bucket shop which was run with considerable style, and which boasted of a private wire between here and its headquarters in New York.

Stocks on a sudden took a sharp upward turn, to the supreme delight of the customers of the bucket shop, who were counting their profits by hundreds and thousands of dollars; but as soon as settlements became imminent, a notice was posted up in the office here, to the effect that owing to the suspension of the concern at headquarters, New York, no further payments could be made by the Montreal branch.

One of the customers having occasion to go to New York, decided to visit the head office in that city, and after a long and tedious search, discovered the principal of this New York head office in a small and dingy room on the top flat of a building, occupying the position of clerk to the Montreal bucket shop on a salary of \$10 per week, his only occupation consisting of transmitting the prices of New York stocks to the branch in Montreal, which he obtained from another bucket shop in the same building. The party who visited the reputed head office in New York stated that he estimated the rent of the office on the top flat to be about \$8 per month, which was used for no other purpose than keeping the Montreal firm supplied with quotations of the New York Stock Exchange,

which were obtained second-hand from other institutions. The hired clerk was represented to the Montreal customers as a prominent member of the New York Stock Exchange, and the quotations received here were said to come direct from their chief on the Exchange.

Most of these bucket shops have no capital outside of what they gather in from their customers in the shape of margins, and consequently as long as the market goes in direct opposition to their clients' expectations all goes well with the bucket shop proprietors in Montreal, and the reputed prominent member of the New York Stock Exchange in his head office on the garret floor gets his weekly stipend of \$10 regularly on time; but, alas! the first time that values go in favor of the customers, they receive word from their head office in New York instructing them to suspend payment. Then the proprietors here, in the coolest manner, inform their duped clients that they are unable to do anything, as margins have been regularly forwarded to New York, and the proprietors are left penniless. And thus the game goes on.—*Trade Bulletin, Montreal*.

The September report of the Duluth custom house shows that 2,388,070 bushels of wheat were shipped, against 647,977 in August; 145,000 bushels of flax, against none in August, and 594,342 barrels of flour, against 283,097 in August.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade, or all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

OFFICIAL OR SHIPPER'S WEIGHTS MUST STAND.

Editor American Elevator and Grain Trade:—A call has been issued for a meeting of the Illinois Grain Dealers' Association at Decatur, Ill., October 17. I have issued a second circular urging dealers to stand firm for fair weights. The names of the violators of the new rule of the Chicago Board of Trade ought to be published so that dealers may give them the go-by. Board of Trade or shippers' weights, one or the other, must stand in this contest.

Yours, B. S. TYLER.
Decatur, Ill.

SHIPPING AT TACOMA.

Editor American Elevator and Grain Trade:—According to the report of the harbor master of the port of Tacoma, Wash., for the month of September, the total exportation of breadstuffs was as follows: Flour, 13,739 barrels, valued at \$33,005. The inward registered tonnage was 56,908 tons; outward registered tonnage 43,476 tons; inward cargoes, 9,787 tons; outward cargoes, 52,322 tons. Miscellaneous merchandise to China and Japan was valued at \$21,513, to British Columbia ports \$22,879. Deep sea arrivals, 36.

SAMUEL COLLYER,
Secretary Chamber of Commerce.
Tacoma, Wash.

CHARGES OF ROUMANIAN ELEVATORS.

Editor American Elevator and Grain Trade:—I desire to give you some details about the rates of the Roumanian Government elevators at Galatz and Braila, which were described in No. 10 of Volume XII of your paper. I believe that it will be of some interest to American shippers, who, in these times of low prices, are fighting for reduced elevator charges.

The Roumanian Government elevators are charging rates as follows: For the storage of grain of every kind for a period of ten days, until ninety days of storage .585 centimes per hectoliter, or .03 of one cent per bushel; after ninety days of storage the charges are double, i. e., 1.17 centimes per hectoliter, or .06 of one cent per bushel. For receiving, weighing and delivering grain from shore to vessels, 13 centimes per 100 kilograms, or .7 of one cent per bushel. For receiving, weighing and delivering from barges to ocean vessels by floater, 6 centimes per 100 kilograms, or .3 of one cent per bushel. For trimming into ocean vessels, 9 centimes per 1,000 kilos, or 47 cents per bushel. The fixed insurance rate is 30 centimes per 1,000 francs value per month, or about 3 cents per \$190.

I believe these rates will make American shippers a little envious. As for the low insurance rates, it is only possible to have them so low when the grain is stored in fireproof warehouses. The walls of the bins of our Roumanian elevators are of concrete, 41 feet high and 4 inches thick. During my stay in the United States in 1893 I had elevator men express much doubt about keeping grain in concrete bins. Now, with the experience of three years, I can assure my American friends that the grain keeps in very good condition in such bins, notwithstanding that it often remains very long in store on account of the low storage rates. I have not seen a single lot of grain out of condition on that account. Of course weevils are utterly unknown.

We are now inaugurating a new bridge over the Danube, which gives to our country a new outlet to the sea, open all the year round. Navigation on the Danube is closed almost three months of the year, and shipping during that time was then impossible. In Rustendje harbor on the Black Sea the government is planning the construction of large elevators of a total capacity of 180,000 tons, or nearly 7,000,000

bushels. Perhaps this time, with the intention of trying every kind of a bouse, they will build one block of elevators, of 30,000 tons' capacity, with cribbed walls, after the American method, or in frame work, like the Fiume elevators, where everything is driven by electricity and every leg has its own motor.

I take this opportunity to renew through your esteemed journal my heartiest thanks to the many friends I made in your country two years ago, and especially Mr. E. Lee Heidenreich and Mr. Ashley of South Chicago. I mail to you \$3 for the thirteenth and fourteenth volumes of your useful journal, which I hope to receive at an early date.

Yours very sincerely, PROF. H. O. SCHLAWE.
Bucharest, Roumania.

A NEW OUTLET FOR RUSSIAN GRAIN.

Editor American Elevator and Grain Trade:—Famine in Persia has finally induced our slow-going grain dealers to enter the grain export trade with that neighboring country. It is reported by the *Black Sea Messenger* that this business has been commenced by sending from Enzeli half a million poods (say 20,000,000 pounds) of grain to Teheran, Persia.

There has been as yet no officially confirmed news of the famine in Persia, excepting, perhaps, one laconic telegram to the effect that there had been a riot in the streets of Teheran, where the people rose against the grain dealers' syndicate and attacked and destroyed the bakers' shops. The rumors which have circulated among our Persian population give the tumult as having been very serious, the military being called out and numbers being slain and wounded. There seems to be a great deal of disturbance in other districts of Persia where the people are starving on account of very poor crops.

For a number of years, owing to very abundant crops both in the southern districts of Russia and the Caucasus, enormous quantities of grain have been accumulating. So the grain markets have become glutted with grain for which there is no sale, and the prices have dropped very low. Several of the grain dealers of South Russia recently went to the Caucasus to examine as to the outlook grain, but on finding that all the Caucasian and transcaucasian markets were overloaded they returned and decided to try something else.

So the famine in Persia comes as an opportunity to start in the exportation of the surplus.

Yours very truly, ALFRED F. BENDER,
St. Petersburg, Russia. Engineer.

OFFICIAL WEIGHMEN AT CHICAGO.

Editor American Elevator and Grain Trade:—When our friends of the Grain Buyers' Association of Illinois came to Chicago to ask our cooperation in correcting the abuses in our system (or lack of system) of weighing grain, it gave me the opportunity I had wished for, and I now believe that within six months Chicago weights will be as near perfect as it is possible to get them.

I had attempted several times to find some way of compelling the buyers here to employ the Board of Trade weighmaster, but failed partly from the lack of interest on the part of the trade generally and partly from the fact that no rule could be legally adopted and enforced by the Board of Trade compelling anyone to employ the Board of Trade weighmaster, owing to the fact that Section 10 of the charter of the Board of Trade which empowers that body to appoint weighmasters, etc., closes as follows: "Nothing herein contained, however, shall compel the employment, by anyone, of any such appointee."

After the Grain Receivers' and Shippers' Association had taken up the matter and our excellent committee had been appointed it became apparent that a few would not cooperate with us in our effort to protect the grain committed to our care; failure stared us in the face, and had it not been that I found a way to place the Board of Trade back of the movement it looks as though the few persons who preferred the old system (for reasons known only to themselves) would have succeeded in their effort to destroy all the work we had done.

I succeeded in drawing up a rule which does not conflict with the charter of the Board of Trade and insures every shipper of grain to this market a disinterested or public weigher's certificate of weights, and

failure on the part of the receiver or track buyer to furnish this certificate is a violation of the rules of the Board of Trade and punishable by suspension or expulsion at the discretion of the Directors. I assume that all dealers are members of the Board. This rule received the approval of the attorney and the Directors of the Board and was adopted by a ballot vote on October 7. That it met with the approval of the trade and was so fair as to defy criticism was clearly shown when the ballots were counted and only 12 negative votes recorded.

But while our work is well begun it is only half done. The weighing of grain is important and we think that that point is forever settled in Chicago, but in order to prove that Chicago weights are honest we must be protected against the petty grain thieves that infest the railroad yards and side tracks in and about Chicago, otherwise our weighing system will be charged up with hundreds of shortages that would never occur if the cars were guarded properly and our city police and railroad watchmen did their duty. This is the next step, and our association will take it up immediately with the railroads.

Careless opening of cars and breaking down of grain doors by inspectors will also be looked into.

Very respectfully yours,

JNO. HILL JR.

Chicago, Ill.

CHAFF.

Considerable wheat has been shipped from Duluth to Chicago by water.

Burglars entered W. W. Eaton's grain office recently at Panora, Iowa, but secured no cash.

A Milwaukee grain man, now in Russia, writes that more can be learned about Russian crops in Chicago than in St. Petersburg.

Three small boys were recently detected filling a wagon with grain from a car on track at Peoria, Ill., but made their escape.

The price of No. 1 Hard Manitoba Wheat has gone above export prices, which is accounted for by its scarcity of that grade and the anxiety of grainmen to get it.

The Chicago *Inter Ocean* says that another bucket shop man has skipped and his creditors are looking for him. He ran two concerns under different names and has left many unpaid bills.

If the monthly crop estimates are abolished by the Department of Agriculture, there will be a dozen private reports issued, probably representing as many different views, and the grain markets will be more demoralized than ever before.

The broom corn growers of Central and Western Kansas are forming local organizations to protect themselves against broom corn speculators who are trying to get control of the bulk of the crop at \$50 a ton. The farmers are standing out for \$60.

The grain buyers of Heyworth, Ill., say there are over 100,000 bushels of old corn in the cribs near that town which the owners could have sold for 50 cents a bushel, but now they cannot get 30 cents. Many of the farmers borrowed money to hold their corn, and now they wish they hadn't done it.

Parrot & Co. of San Francisco have sued C. J. Kershaw, P. H. Kershaw and H. Cranson Potter, copartners under the firm name of the West Coast Grain Company, Tacoma, for \$1,750 for failure to accept 200,000 Calcutta grain sacks alleged to have been ordered on May 2, 1895, and which the defendant refuses to take.

Weevils are making themselves so obnoxious in this country that experts of the Department of Agriculture are now engaged in making a special study of them. Every year they destroy many millions of dollars' worth of stored cereals in granaries and elevators. In fact, the question how to fight them is one of serious and growing economic importance. Strange to say, very little scientific attention has been directed to these insects up to date, and not much is known about them. It is reckoned that they cause an annual loss of over \$1,000,000 in Texas alone, and in 1893 the corn crop of Alabama was damaged by them to the extent of \$1,670,000.

MEETING OF THE IOWA GRAIN DEALERS' ASSOCIATION.

The Central Iowa Grain Dealers' and Mutual Fire Insurance Association met September 11, in the Youngerman Building, Des Moines, Iowa. The members present were Allen Smith, president; B. A. Lockwood, vice-president; M. McFarlin, treasurer; M. T. Russell, secretary; F. J. Wright of St. P. & K. C. Grain Co.; E. Ericson, Story City; E. P. Gilbert of Gilbert Station; Wm. Wolfe of Bouton; J. R. Lawbaugh, Hardy Bros., and others.

On motion of M. McFarlin the Chairman appointed a legislative committee, composed of Allen Smith of Boone, R. A. Frazier of Nevada, J. G. Dutton of Perry, W. H. Howard of Webster City and Scott Horine of Bayard. The duty of this committee will be to devise means and plans to secure the repeal of the unjust law now in force in Iowa making grain dealers responsible to landlords for the acts of dishonest tenants in selling grain to them which is the property of the landlord.

On motion a Committee on Commissions and Weights was appointed by the Chairman, consisting of J. A. Adams of St. P. & K. C. Grain Co., W. J. Leake of Rippey, and M. McFarlin.

The following resolution was adopted unanimously:

Resolved, by the members of this Association, that each member notify his commission merchant that his grain must be weighed by a weighman appointed by the Board of Trade when possible.

E. Ericson of Story City moved for the appointment by the Chairman of a committee to formulate a plan for a Fire Insurance Department for the Association. The Chairman appointed B. A. Lockwood of Des Moines, Allen Breed of Perry, and E. Ericson of Story City.

Four new members were enrolled at this meeting, viz, Jay G. Dutton of Perry, Wm. Wolfe of Bouton, Harvey Bros. and C. W. Smittle of Grand Junction.

The AMERICAN ELEVATOR AND GRAIN TRADE was made the official organ of the Association.

An interchange of views on matters connected with the grain business was indulged in by Lyman Johnson of Sioux Rapids, M. McFarlin, Lockwood, Wright and others, after which the meeting adjourned subject to call of the President.

M. T. RUSSELL, Secretary.

BELTS AND BELT LACING.

BY J. T. SMITH.

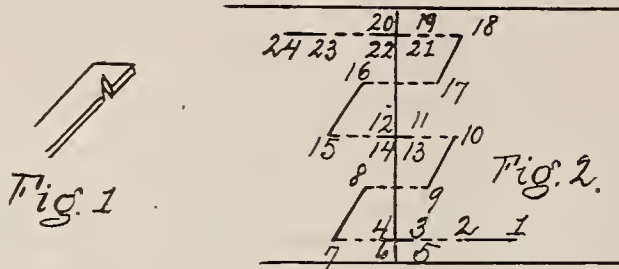
There is nothing very mysterious about belts, and yet not five out of ten men who run them know much about them, and a good part of what they do know is mere supposition or error. Yet a very few common sense facts will suffice to get a good belt and keep it.

In buying a belt it is a pretty good rule to fold a piece to a U shape and notice if it wrinkles at the bottom of the fold. These wrinkles are the infallible sign of a poor belt. The next best thing to purchasing a good belt is to take care of one. Do not let it get dry when in use, but grease it once a month, and before applying the grease dust the belt thoroughly, for dust is ruinous to the best of belts. If the belt slips and squeals when starting up, turn it over and notice the effect—then remedy it. It is bad policy to overwork a belt. A good rule to keep in mind is that a belt one inch wide, traveling 800 feet per minute, will safely deliver one horse power.

If a belt runs off a pulley one should not jump to the conclusion that the shafts are out of line and that the belt runs to the high side of the pulley. Let us proceed on a supposition quite the opposite, and it will be found that high speed belts run off the low side. This rule should be tried on a belt that keeps running off, and, with work governed accordingly, a satisfactory solution of the trouble will probably be found.

One common practice with belts is a very good one—lacing them instead of using hooks. Hooks are noisy, and noise from such a source tells of loss of power, and they are not as safe as a good lace. The secret of a good lace is in the method of fastening adapted to the ends of the belt. Some tie knots in the lace, but a better method is to cut a notch in the

end of the lace as shown in *Fig. 1*. When the lace is pulled through a hole it will catch at the notch and hold better than a knot. It is desirable to avoid all jar when the belt passes over the pulley, and for a high speed belt the method of lacing shown in *Fig. 2* is recommended, as it contains all the elements of a good fastening. The figures indicate the course of lacing, beginning at 1 and passing through some of the holes twice. It will be noticed that at the alternate holes the lace passes around the joint. The lace



should fit the hole snugly, but be neither too large nor too small.

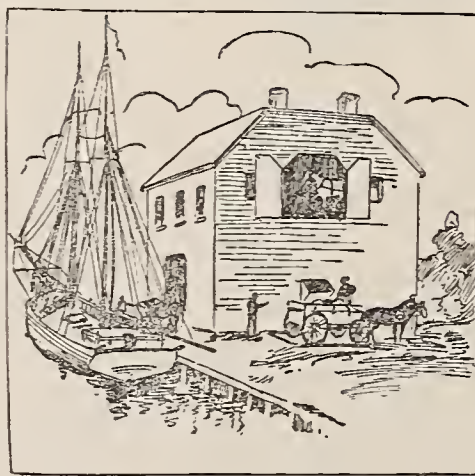
If these few directions were followed, belts would be much more serviceable.

CHICAGO'S EARLY ELEVATORS.

The first grain warehouse which had facilities for loading and unloading grain entitling it to the style of an elevator was that built by Newberry & Dole on the north side of the river at a point just east of the present Rush Street bridge. Grain was loaded into it by block and tackle operated by hand, and the second shipment of Chicago grain was made from it in 1839. The next advance was in the use of horse power. Bags of grain were drawn up by a rope first, and later a treadmill arrangement working an endless chain with buckets was used. In 1842 the big house of the city was only 40x100 feet in dimensions. The first elevator to be operated by steam was built in 1848 by R. C. Bristol.

In 1855 Sturges & Buckingham, by arrangement with the Illinois Central Railroad Company, built an 800,000-bushel warehouse, and this was referred to as a mammoth building at the time. At that time it is estimated that there was not to exceed 750,000 bushels of storage room in Chicago.

Elevators have been rebuilt time and again and only a few of what might be termed old-time houses are in existence in anything like their original form. The "Rock Island B" elevator was built in 1862, construction having been under way for nearly three years.



ONE OF CHICAGO'S EARLY ELEVATORS.

This is one of the oldest houses in operation at the present time, and is operated to-day with the same engine, with the same bins, and same grain scales that were put in when it was constructed. The old "Rock Island A" house was built in the 50s, but lost its identity in being rebuilt in 1892.

Down at these houses may be seen one of the old carts which were used in unloading grain from the elevator. The old method of handling grain was to elevate it into the warehouse by horse power, and run it out on an inclined plane to the hold of the vessel in carts. Mr. Thompson of Flint, Thompson & Co. was in the habit of running one of the unloading carts himself, and another of the old-time elevator proprietors tells of carrying bags of grain from his house out

to the vessel. The first elevators were along the main part of the Chicago River, many of them extending out on to South Water street. They were operated without any particular inspection or supervision, and later on, after the formation of the Board of Trade, were under its inspection.

WARNING AGAINST FAKE COMMISSION FIRMS.

Officials of the Western roads have been considerably wrought up over the expose of the Garden City Grain and Commission Company, a mythical Chicago corporation which has been offering flattering commissions to railroad agents for them to induce shippers to consign shipments to the above fictitious company. If innocent shippers were defrauded of their money in this way the railroad companies could be made defendants, through the law of agency, to any damage suits.

To guard against danger the Chicago, Milwaukee & St. Paul Company has sent out the following notice to all its agents:

CAUTION.

To Agents—Certain parties in Chicago, who advertise themselves as commission merchants, are sending to some of our agents circular letters which contain a proposition to pay commissions on shipments which agents may induce shippers to consign to them. This is to instruct and to caution agents and employes that they should make no effort to influence shippers in any manner, and that they should not accept commissions from anyone under any pretext.

Country shippers should also beware of accepting the recommendation of station agents who have had no experience in shipping, hence do not know much about commission firms. If grain is shipped to a member of a commercial exchange and the receiver does not carry out his commission honestly he is amenable to the rules of the exchange. Charges may be preferred against a member with the board of directors at any time.

WINTER WHEAT IN ONTARIO.

The Ontario Experiment Station gives the following conclusions from its experiments in growing winter wheat:

The average results of winter-wheat growing on the experimental plots for six years in succession are as follows: Weight of grain per measured bushel, 60.6 pounds; yield of straw per acre, 2.5 tons, and yield of grain per acre, 38.2 bushels.

Dawson's Golden Chaff gave the largest average yield of grain per acre among 53 varieties of winter wheat grown at the Ontario Agricultural College for four years in succession; also among nine leading varieties tested over Ontario in 1894, and among 11 leading varieties tested over Ontario in 1893.

The varieties which possessed the stiffest straw among 53 kinds of winter wheat grown for four years in succession were Dawson's Golden Chaff, American Bronze, Fultz, Velvet Chaff and Red Russian.

The varieties of winter wheat which proved the hardiest in 1895, among 102 varieties tested, were Dawson's Golden Chaff, Stewart's Champion, Siberian, Jones' Square Head, Turkish Red and McPherson.

When winter wheat was sown later than September 9, the crop was much poorer than when the seeding took place on or before that date.

In 1895 the varieties of winter wheat possessing bald heads and white grain gave an average of 4.3 bushels of grain per acre more than the varieties possessing bearded heads and red grain, but in average weight per measured bushel the latter surpassed the former by 1.3 pounds.

When a horse runs away without fault of the driver a person injured thereby cannot recover damages.

A thin flat board nailed over the holes in the floors of the old worn cars given you to load grain into will be much better than heavy 2-inch stuff, which will catch the power shovel and make it inconvenient for the shoveler to unload all the grain. The shovel can easily get a hold on a large block and if it pulls it off of the hole in the floor much grain will be lost.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.

No. 8. Elevator for Handling Coarse and Small Grain.—

I would like to see in the AMERICAN ELEVATOR AND GRAIN TRADE a description of a small elevator with equal facilities for handling ear corn and small grain. There is need of such an elevator in this section of Ohio, and I would like to know of a house that is conveniently and economically arranged for this purpose.—L. SIMONTON, Lebanon, Ohio. [If any of our readers have or know of such a house they would confer a favor by sending us a rough drawing of plans and a description of same. The elevator illustrated on the first page of the September number of the AMERICAN ELEVATOR AND GRAIN TRADE is designed for handling both coarse and small grains.—Ed.]

No. 9. Can Grain Be Conveyed by Air?—We would like an opinion upon air conveyors for grain. Our malt house is about 1,700 feet distant from our distillery, and we desire to convey malt between them by means of a blower. Is there any machine built for the purpose and in successful operation? If so, where can it be obtained? Any information on this subject will be highly appreciated.—DISTILLER. [ANS.—There have been several appliances invented for the pneumatic conveying and transfer of grain, some of which have been in successful operation. The method invented by F. E. Duckham and used by the London Elevator Company is fully described on page 76, No. 3 of Vol. XII, and on page 129, No. 4 of Vol. XIII, of the AMERICAN ELEVATOR AND GRAIN TRADE, and pneumatic conveyors used at Odessa, Russia, are illustrated on page 7, No. 1 of Vol. XIII. The Smith Pneumatic Transfer and Storage Company of Chicago have a pneumatic transfer system in operation at Toledo, Ohio.—Ed.]

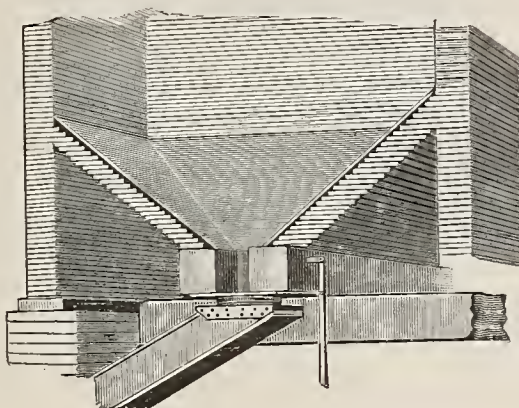
No. 10. What is the Loss by Shrinkage?—We would like to be informed of the loss on wheat by shrinkage for six months, beginning August 1. Also the shrinkage of corn during the same period.—AJAX MILLING COMPANY, Gallatin, Tenn. [ANS.—The shrinkage of any kind of grain depends upon many things—its condition when harvested, the temperature, season of year and how it is stored. Generally speaking, 75 per cent. of the moisture of grain will have evaporated in six months after harvest, and the grain will have shrunk in proportion to the amount of moisture evaporated. If the grain has been through wet weather before storage the greater will be the amount of moisture evaporated. In a warm temperature or season the evaporation will be greater than it otherwise would. The possible amount of shrinkage can be determined by weighing on an apothecary's scales a certain amount of grain, drying it and then weighing it again, the difference in the weights being the amount it will lose by shrinkage.—Ed.]

No. 11. Do Railroads Discriminate?—The railroads as a rule are very friendly to private elevators, and well they might be, for they are relieved of considerable expense and trouble in this class of business. I own and operate a private elevator situated on railroad ground. I have very strong competition in buying from towns on neighboring roads and consequently am not able to buy more than one-third as much grain as rightfully belongs to my place. What I buy I am obliged to pay outside figures for, and as a result there is very little profit in the business, scarcely enough to pay for actual labor. I have always been handling and loading grain without expense to the railroad company, and have paid full tariff rates. My shipments are all milled in transit, for which the railroad makes an extra charge, ostensibly to pay switching charges, etc. I understand that some railroad companies do allow shippers from private elevators a lower freight rate than if shipped and handled through the company's elevators. I have never been favored in any such substantial way. I make this statement through the columns of the AMERICAN ELEVATOR AND GRAIN TRADE, and earnestly request that some or all of my fellow grain dealers will inform me of any dis-

crimination in favor of private elevators which they may know of. All letters will be held in strict confidence.—GRAIN DEALER. [The Interstate Commerce Law was intended to prevent discrimination, but carriers ignore it and discriminate whenever they can get business by so doing.]

A NOVEL BIN GATE.

The accompanying engraving shows the Reliance Sliding Swivel Gate for use in elevator construction. It is shown in connection with a bottom discharge from a grain storage bin, although the same gate may be placed in a vertical position to suit a side discharge. It consists of a cast iron frame, which is to be firmly



A NOVEL BIN GATE.

bolted to the woodwork of the bin, a heavy wrought iron slide which travels in grooves cast in the iron frame and the cast iron lever with its attachments for opening and closing the gate. A cast iron flange with screw holes is provided for attaching a wooden spout; and the swivel permits this wooden spout to be revolved in a complete circle.

It is made in 8, 10, 12, 14, 18 and 24 inch sizes and sold at very moderate prices, and the manufacturers, The Edw. P. Allis Company of Milwaukee, Wis., will be pleased to send catalogue and prices to any reader.

INSPECTING AND WEIGHING GRAIN AT TOLEDO.

The methods of inspecting and weighing grain at Toledo, Ohio, are similar to those employed elsewhere. The weighing is done at the elevators or in the cars by the elevator companies, unless a request is made to the contrary. Several of the elevators are operated by railroad companies. In such cases the weighing is done by deputy inspectors under the direct supervision of a chief inspector. The chief inspector is chosen by the Toledo Produce Exchange and is paid a salary of \$2,500 a year. He has about a half dozen deputies who are paid from \$75 to \$100 a month. For weighing when done by the inspector a fee of 25 cents per car is charged. From 600 to 1,200 bushels are weighed at a time and the Demuth Check Beams and system of recording weights are generally employed. The deputy inspectors are selected by the chief inspector, but their appointment must be ratified by the Board of Directors of the Produce Exchange. There is no chief inspector in this state, so the word and will of the chief inspector of the city are accepted as final. Very few complaints are heard. No positions of this character are filled by political appointment in Toledo.

A prominent dealer on the Chicago Board of Trade notes that the Toledo market was so far below Chicago last year that cargoes were shipped from there here at a profit. Now the Toledo discount has changed to a premium, and it is more than double last year's discount, showing a change of nearly 10 cents a bushel and Chicago is shipping cargoes to Toledo. Last year wheat was brought here solely to earn storage charges at a time when the trade was already much depressed by the load it was carrying. Now it is going to Toledo on an urgent demand from millers, who are paying for it 7 cents over Chicago prices. Two years ago the Kansas City market was from 8 to 10 cents under Chicago. Now it is 5 to 6 cents higher for No. 2 Winter. The same grade of wheat is 5 to 6 cents higher in St. Louis than in Chicago, while a year ago it was 3 to 4 cents cheaper.

TRACK SCALES AND CLEAN BILLS OF LADING.

The railroad and warehouse law of Illinois provides that, at all stations from which the shipments of grain by the road touching such stations shall have amounted during the previous year to 50,000 bushels or more, such road or corporation shall, when required by the persons who are the shippers of the major part of said 50,000 bushels, erect and keep in good condition, and use in weighing grain to be shipped over its road correct scales for the weighing of grain by carloads in the cars after being loaded. The road is required to weigh correctly each car before and after loading and ascertain and receipt for the true amount of grain so shipped. If the road refuses to do so the sworn statement of the shipper shall be taken for the amount shipped. In case the grain on reaching its destination does not tally in weight with the amount which the receipt calls for as weighed on the road's scales at point of shipment, or according to the sworn statement of the shipper in the absence of such scales, the railroad is responsible for the shrinkage.

Track scales at country points where experts cannot inspect them frequently are no more reliable than a good guesser.

SCREENINGS.

It is sad to think of, but it is evident that the religion of the bears is not based on the buyble.

Just now the farmer is not saying much about the iniquitous Chicago Board of Trade. He is too busy estimating the wheat he will want to sell to it pretty soon.

Putson—I can't see any reason for thinking this weather is injuring the corn.

Kawls (on the wrong side of the market)—By George! if you were in my place you would see plenty of reasons and you'd hunt blamed hard for more.

Jinks—Smithson strikes me as being a sort of religious broker, but I'm blamed if I can tell whether he's a bull or a bear.

Filkins—Why not?

Jinks—Because he's long on countenance and short on works.

Wickwire—Don't you think this bicycle craze, in doing away with your sale of hay and oats, will make times harder for the farmers?

Mr. Haicede—Won't make times no harder with me. I'm goin' into the business of raisin' arnica and witch-hazel.

A man recently from Iowa says he saw a farmer standing at the foot of an enormous cornstalk "How big is your corn?" asked the stranger. "I don't know answered the farmer; 'I sent my boy up to see a little while ago and I'm worried to death about him.'" "How so? Can't he get back?" "No, that's the trouble. The corn stalk's growing up faster than he can climb down."—Washington Star.

Since our last report oats have grown so rapidly that they have lost their heads, and during the last electric storm they were badly shocked.

The Gallupville nine were caught out three times running last week and attribute it to the very catching weather.

Hay is a very light crop and the bales will only be about half as big as last year.

Bunco steerers and grasshoppers have picked up everything green in Buncombe county and are now working over into New Jersey.

Corn is a fair crop, and extract works have been started in the mountains, so that only the extract need be shipped. From a specimen sent us in a bottle we should say Jobson's extract goes to the head, in quality.

Watermelons should be planted in the light of the moon and gathered in the dark of the moon.

Cucumbers have been taken in large quantities and holders are looking for relief—Aker's Ready Relief.

Miss Arty Choak: No, my dear, the eggplant will not produce eggs north of 4-11-44.

Hops are coming out of the burr and doing finely, especially near the summer resorts.—Bung Town Bazoo.



Leonard Hilbert is to build a brewery at Duchore, Pa.

A new brewery is to be established at Goodhue, Minn.

John Mariano's brewery at Newtown, N. Y., is completed.

Anderson & Son, brewers of Haywards, Cal., have sold out.

Jos. R. Diehm & Co. have a new brewery at Stockton, N. J.

Steinacher & Wahl, brewers of Hollister, Cal., have dissolved.

Gustav Hausberg's new brewery at Blue Island, Ill., is completed.

An addition is to be made to Adolf Coors' brewery at Golden, Colo.

Joseph Schamberger has completed his new brewery at Sacramento, Cal.

A company is being organized to purchase the idle brewery at Tarr, Pa.

The Du Bois Brewing Company has been incorporated at Du Bois, Pa.

Emil Wackerling's brewery at St. Helena, Cal., was recently destroyed by fire.

An addition is to be built to the Walkerville (Ont.) Brewing Company's plant.

The Koch Brewing Company of Williamsport, Pa., has succeeded A. Koch & Bro.

The new brewery at Altoona, Pa., is completed and will be operated by Wm. H. Bender.

The Union Brewing Company of Nanaimo, B. C., will erect a brewery at Union, B. C.

Gibson's malt house at Waterloo, N. Y., is being enlarged to double its former capacity.

August Hartung's brewery at Honesdale, Pa., which was burned recently, is being rebuilt.

Paul Pohl, brewer of Chicago, intends to erect a weiss beer brewery at a cost of \$20,000.

The Stoll Brewing Company has succeeded to F. K. Stoll's brewing business at Troy, N. Y.

The John Von der Horst Brewery has succeeded John Von der Horst Sr., Baltimore, Md.

Goenner & Co. will soon begin the erection of an addition to their brewery at Johnstown, Pa.

The Oconto Brewing Company of Oconto, Wis., will soon begin the erection of a malthouse.

Otto Philipps has succeeded to the brewing business of Peter Philipps at Punxsutawney, Pa.

Fred. Koch, brewer of Dunkirk, N. Y., is contemplating the erection of a brewery at Jamestown.

Nacey & Flanigan have erected a brewery and are going into the brewing business at Oswego, N. Y.

The Casey & Kelly Brewing Company of Scranton intends to erect a brewery at South Scranton, Pa.

Fred W. Zerther has purchased the brewery belonging to the estate of Frank Balder at St. Cloud, Minn.

The Wadena Brewing Company has been organized at Wadena, Minn., to operate Henry Ebner's brewery.

The Stanton Brewing & Malting Company has been organized at Troy, N. Y., to operate John Stanton's plant.

At the annual exhibition of barley recently held at Prague, Bohemia, the first and other prizes were awarded to a sample of Wrinch's Premier, the prod-

uct of a sample of this variety exported from Ipswich, Suffolk, England, last year.

An addition is to be erected to the brewery of the Quinpiac Brewing Company at New Haven, Conn.

James Cummings has obtained possession of and will operate the Kiernan brewery at Kingston, N. Y.

The Antigo Brewing Company has been incorporated at Antigo, Wis., with a capital stock of \$20,000.

Anspacher Bros. of San Francisco recently made a shipment of 23,000 sacks of Chevalier barley to England.

Theodore Aubertine's brewery at Cape Vincent, N. Y., recently sustained considerable damage from a cyclone.

The Seattle (Wash.) Brewing and Malting Company is building a \$3,000 addition to its Claussen-Sweeney Brewery.

Helf & Brill will erect a brewery at Kaukauna, Wis., to take the place of the one destroyed by fire some time ago.

Armbruster & Schmitt have succeeded to the brewing business of Armbruster Bros. & Schmitt, Zanesville, Ohio.

The firm of Lehmkuhl Bros., brewers of Central City, Colo., has been dissolved, John H. Lehmkuhl succeeding.

Chas. Kaestner & Co. have secured the contract for the erection of the Consumers' Brewing Company's plant at Roslyn, Va.

Briggs & Co.'s brewery at Elmira, N. Y., sustained slight damage by fire recently, which resulted from the explosion of dust.

Haeman & Oster, brewers of Cold Spring City, Minn., have dissolved partnership, Oster & Hilt succeeding to the business.

Augustus Dunckel has placed a large engine in his malt house at Cayuga, N. Y., to furnish power for grain elevating purposes.

The Kamm & Schellinger Brewing Company is contemplating making additions and improvements to its plant at Mishawaka, Ind.

Jackson Koehler's new brewery at Erie, Pa., is being supplied with a non-explosive malt mill, and a full line of other machinery.

The Klinckhamer Brewing Company of Cincinnati, Ohio, has gone out of business, having sold its plant to the Gerke Brewing Company.

The McKeesport Brewing Company is about to begin remodeling the Altmeyer Theater Building into a brewery which it will operate.

The American Brewing Company of Providence, R. I., has been dissolved, having been succeeded by the Providence Brewing Company.

Deficiency judgments amounting to \$60,877 have been entered against John B. Manning, maltster of Buffalo, N. Y., growing out of the foreclosures of mortgages.

Armour & Co. of Chicago have made preparations to handle barley at their elevators at Chicago. Buyers have been sent out to districts from which barley is shipped to Chicago, and it is expected that the firm will handle a large quantity of the grain.

Shipments of barley from Chicago are exceeding those of last year, for the reason that receipts are far in excess of local requirements. The Chicago O'Neill Grain Company, which used to do nearly all its shipping from Milwaukee on account of better storage ac-

commodations for barley there, has increased its own facilities at Chicago and is doing most of its business therefrom.

The James Hanley Brewing Company of Providence, R. I., has succeeded to the business of the Rhode Island Brewing Company.

The newly incorporated Excelsior Brewing Company of Chicago has purchased Michael Sieben's brewery, which it will operate after making extensive improvements.

The D. Rothschild Grain Company of Davenport, Iowa, has leased the malt house belonging to the Gipps Brewing Company of Peoria, Ill., and will operate it during the coming season.

An alteration has been made in the local ordinance of Alameda County, California, allowing dairymen to use brewers' grains as feed, and the dairymen are unwisely feeding the stuff wet instead of dry.

The malt house of the Globe Brewery at Baltimore, Md., sustained a loss of \$15,000 by fire on the morning of October 6. Full insurance was carried. It is thought that spontaneous combustion caused the fire.

The establishment of the malt industry at Sheboygan, Wis., has been a stimulus to barley raising, and it is expected that the crop will amount to 500,000 bushels in Sheboygan County this year. The K. Schreier Brewery at Sheboygan has already purchased 100,000 bushels.

There is serious objection of feeding wet grains, which are admitted to be an unreliable and objectionable food, says the *Western Brewer*, but dried brewers' grains are everywhere, and by all competent authorities held to be a most wholesome and desirable cattle and horse food. There is, therefore, only one thing for the brewer to do, and that is to dry his grains. If he does dry them, he can defy all attacks on their quality, but he cannot successfully defend them as a food when used wet.

A leading barley and malt dealer of Montreal, Canada, who has been traveling through the Western part of the country, says that even the medium grades of malting barley will be scarce this year, and that feed barley will be abundant and cheap. In a number of samples of new barley from Ontario nearly all were discolored by rain, and the best samples when tested were deficient in sprouting, showing 13 to 20 per cent. of non-sprouting grain. Only one sample out of the lot sprouted within 4 per cent.

The Department of Agriculture of Canada has been informed that Canadian barley is attracting considerable attention in Great Britain in connection with distilling. A leading Scotch distiller, whose experience with the Canadian article seems to have been of the most satisfactory character, says that Scotland would prove a good market for the article for whisky distillation. He says that Canadian barley purchased by him gave entire satisfaction, that he would be very willing to buy it by the shipload, and is surprised that Canadian barley is not offered in Scotland in the ordinary way of business.

It is reported that British brewers will at the next session of Parliament endeavor to obtain a parliamentary committee to inquire into the displacement of British by foreign brewing materials. The object in view is not so much the showing that their own barley is not largely superseded by rice, maize, sugar, syrups, etc., as in the expectation that such a committee would be able, from the scientific evidence which would be given before it, to report that the liquor manufactured from foreign materials is quite as good as that obtained from home-grown barley. Prior to the imposition of the beer duty, only malt and sugar were allowed in brewing.

Charles Kaestner & Co. are busy with the following and many other orders: One 30-inch malt mill for H. Truby & Son, Joliet, Ill.; 15-horse power automatic engine, steel keg elevator, complete wash-house outfit and machinery for grain storage for Thieme & Wagner Brewing Company, Lafayette, Ind.; 150-horse power tubular boiler, steam pumps, etc., for Compania Cerveceria, Toluca, Mexico; complete outfit, including hydraulic mash machine and grains remover, non-explosive malt mill, elevators and all transmission, for C. Kern Brewing Company, Port

Huron, Mich.; complete-malting manufacturing plant for Heisler & Junge Company, Chicago.

THE IMPROVEMENT OF MALTING BARLEY BY STORAGE.

In a recent leader, our contemporary *Le Moniteur de la Brasserie* draws attention to the well-ascertained fact that barley intended for malting purposes is improved by storage. Indeed, it goes so far as to assert that a certain period of storage is essential if the aim is to produce the highest quality of malt. The chief point insisted upon is that a certain period of repose is necessary before the barley grains take up the exhausting duties of germination. The effect of this repose, physically and chemically speaking, is the desiccation of the grain and the maturation of its tissues. Unless this maturation has duly taken place, the starch of the grain does not become so fitted for the subsequent transformation to which it is subjected; nor is the germ so prone to develop well on the malting floors. Our contemporary, however, is alive to the dangers of prolonged storage; and especially to the dangers which are associated with bad conditions of storage. These latter cannot be underrated. The prime beneficial condition is good ventilation in the houses in which the barley is stored. This, combined with clean floors and walls, and especially with well-drained floors, will insure the barley from attack by those various "diseases" to which it is subject before malting.

IMPROVEMENT IN MALT KILNS.

With the object of the better curing of malt, and to produce a pale malt with plenty of fire, Mr. Hardy, architect, Nottingham, England, has erected kilns on a new system, which have proved very successful. The green malt is placed on three kilns side by side ten inches deep and dried in 48 hours. The malt from the center kiln is then spread over two kilns on either side, bringing up the thickness to ten inches from seven inches to which it shrinks on drying. The center kiln is then used for barley-drying. This arrangement saves the expense of a barley-drying kiln, and also loads the malt kilns on the last days with the same thickness of grain as on the first day, which is, no doubt, an advantage in curing the malt perfectly.

The kiln floors are from 25 feet to 27 feet from the ground, under which comes the hot air chamber of special design, with fire chamber, in which a patent fire basket is placed, the heat rising and concentrating under a dome, from which it is drawn into the hot air chamber; this saves fuel, one fire being ample for 40 or 50 quarters. A special cupola is placed over each fire, which is opened and closed at pleasure, and during the curing process is of great use in giving quiescent heat to the kilns.—*London Brewers' Journal*.

SCREENING AND CLEANING BARLEY.

The preparation of barley for malting is of great importance and should never be neglected or even carelessly carried out. Broken and half grains should be removed, as they spoil the appearance of a sample of malt, and, moreover, encourage the development of mold. The barley should also be graded and all the thin grains, or "tail barley," taken out. Small grains, if left in, give an uneven appearance to the finished malt, and, as they frequently pass through the mill rollers uncrushed, are often valueless, whereas, if screened out, they make, when ground, good feeding material. In addition, screening removes the greater portion of the dust that, more or less, clings to every sample of barley. Where possible, the barley should be brushed, and the dust removed by an aspirator. Barley dust is known to contain numerous micro-organisms of almost all kinds, such as wild-yeasts, mold spores, bacteria, etc., some of which are, no doubt, harmless to the growing grain, but others are decidedly to be dreaded. If uncleaned barley is shot into the empty cistern a thick cloud of dust will arise, which quickly pervades the whole growing floor. Few maltheuses are so constructed that the dust arising from the barley can be isolated from the growing floors, and yet such a simple precaution would not entail much labor or expense, and would prove very beneficial.—*Country Brewers' Gazette*.

UNIFORM STANDARD OF WEIGHTS AND MEASURES.

The Massachusetts Legislature at its last session passed an act to establish a law uniform with the laws of other states for a uniform standard of weights and measures.

The act provides that the avoirdupois pound shall bear to the troy pound the relation of 7000 to 5760. The hundredweight shall contain 100 avoirdupois pounds, and the ton 20 hundredweight.

The barrel shall contain 31½ gallons and the hogshead two barrels.

The dry gallon shall contain 282 cubic inches, and the liquid gallon 231 cubic inches.

The bushel in heap measure shall contain 2,150.42 cubic inches.

The barrel of flour, measured by weight, shall contain 196 pounds, and the barrel of potatoes 172 pounds.

The bushel of wheat shall contain 60 pounds, Indian corn or of rye 56 pounds, barley 48 pounds, oats 32 pounds, corn meal 50 pounds, rye meal 50 pounds, peas 60 pounds, potatoes 60 pounds, apples 48 pounds, carrots 50 pounds, onions 57 pounds, clover seed 60 pounds, herdsgrass or timothy seed 45 pounds, bran and shorts 20 pounds, flaxseed 55 pounds, coarse salt 70 pounds, fine salt 50 pounds, lime 70 pounds, sweet potatoes 54 pounds, beans 60 pounds, rough rice 45 pounds, upland cottonseed 30 pounds, buckwheat 48 pounds.

DOTS AND DASHES.

The Farmers' Elevator at Brookings, S. D., was recently burglarized, \$200 being secured.

In the absence of an agreement to the contrary, delivery to a common carrier is delivery to the consignee.

It is reported that someone is trying to manipulate the flowing flaxseed in Duhuth, one individual having bought 25,000 bushels recently.

Missouri corn is rapidly drying out and will soon be ready for gathering into the barn. Cutting and fall plowing are being pursued with earnestness.

Adam Olinger, grain and flour merchant of Reading, Pa., was robbed of \$510 the other day, which was taken from his room while he was eating his dinner.

H. T. Cotton & Co. recently made the largest shipment of rice ever sent out of Lakeside, La. There were five carloads or 100,000 bags, and they were shipped to Crowley, La.

Burglars recently entered the store of Henry Stokes, grain buyer of Sombra, Ont., and just missed getting \$5,000. They had blown open the safe when they became frightened and decamped.

Chicago elevator men and grain receivers are inclined to be rather blue over the small local grain receipts in view of the immense movement in the Northwest. Local arrivals have been abnormally small all season.

It was suggested on 'Change recently that a petition be sent to the Railroad and Warehouse Commissioners asking them to establish the grades of No. 1 and No. 2 Northern wheat in the dirt so as to allow Northern wheat to come to Chicago.

Were the monthly government reports to be abolished the grain trade would be in a demoralized condition, as there would be no standard authority on crops. The trade would be dependent upon the private reports, and there could be no reliable standard.

An important decision has been made recently by the Supreme Court of New York to the effect "that it is the duty of a broker or agent to keep accounts showing the names of persons with whom he deals for his principal is plain to the last degrees." The rules of the Chicago Board of Trade require members to furnish the names of parties they deal with in making trades for their customers.

The South is being filled up with advertisements and circulars of bucket shops, who claim to be doing a Chicago Board of Trade business with private wires, etc. Most of them do business under the name of the so-and-so commission company, and claim to have private wires to the Board. The only wires they have are ticker wires. Secretary Stone's office is being flooded with inquiries regarding these houses, and

some of them are derogatory to their business standing.

Cyprus methods of agriculture are of the most primitive description. The plow in use in Cyprus is just what Virgil describes. They haven't changed their implements of agriculture for 2,000 years. As for the thrashing floors, they are precisely what they were in Palestine in the days of Araunah the Jebusite. Every village has one or more of these.

A member of the Montreal Corn Exchange made the statement a few days ago, that he left this city in 1871 to go to Chicago, and returned here in 1895; and that during his absence of nearly twenty-five years, while quite a number of firms in the Montreal grain trade had gone out of existence, not five new firms had come in. This does not speak volumes for the progress of the Montreal grain trade.—*Trade Bulletin, Montreal*.

There are many good people who are now complaining that with a big corn crop, representing much time and money, they will not be able to realize much more than cost. Even then, taking the worst view of the case, it is unquestionably better for a man to be able to do some business by having a big crop than to have only the few with ready money able to do business, as is the case when corn is very scarce and very high.—*Drover's Journal*.



Issued on September 3, 1895.

FEED MILL.—James N. Eastwood, Kansas City, Mo. No. 545,461. Serial No. 527,927. Filed Nov. 5, 1894.

GAS ENGINE.—Herbert H. Hennegin, St. Louis, Mo. No. 545,502. Serial No. 537,988. Filed Feb. 11, 1895.

ELECTRIC IGNITING APPARATUS FOR GAS ENGINES.—Henry Thau, New York, N. Y., assignor to James W. Irwin, same place. No. 545,553. Serial No. 526,433. Filed Oct. 20, 1894.

MACHINE FOR SEPARATING BROOM CORN.—Alphonso Walrath, Ft. Plain, N. Y. No. 545,619. Serial No. 548,521. Filed May 8, 1895.

GAS ENGINE.—Frank S. Mead, Montreal, Canada. No. 545,709. Serial No. 519,288. Filed Aug. 2, 1894.

Issued on September 10, 1895.

GAS ENGINE.—Charles White and Arthur R. Middleton, Baltimore, Md. No. 545,995. Serial No. 496,431. Filed Jan. 10, 1894.

PEA SHELLING MACHINE.—John H. Empson, Longmont, Colo. No. 546,095. Serial No. 517,967. Filed July 19, 1894.

GAS ENGINE.—Edward E. Butler, Atlanta, Ga., assignor of one-half to Robert P. Horton, same place. No. 546,110. Serial No. 520,736. Filed Aug. 18, 1894.

Issued on October 1, 1895.

MALTING MACHINE.—Carl G. Bosch, Davenport, Iowa. No. 546,994. Serial No. 521,397. Filed Aug. 27, 1894.

BALING PRESS.—Chas. E. Whitman, St. Louis, Mo. No. 547,051. Serial No. 540,440. Filed March 4, 1895.

INTERMITTENT HORSE POWER.—John W. Gilmore and Chas. F. Griffin, Compton, Ill. No. 547,206. Serial No. 542,974. Filed March 23, 1895.

APPARATUS FOR CLEANING OR SCOURING AND CLIPPING OATS, ETC.—Daniel Hogan, Chicago, Ill. No. 547,398. Serial No. 548,999. Filed May 11, 1895.

Issued on October 8, 1895.

GAS ENGINE.—John J. Boardman, Brooklyn, N. Y. No. 547,414. Serial No. 498,943. Filed Feb. 3, 1894.

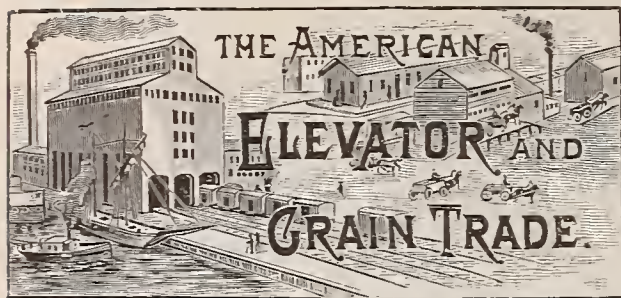
PETROLEUM OR HYDROCARBON ENGINE.—William E. Gibbon, Colchester, England. No. 547,606. Serial No. 545,195. Filed April 10, 1895.

COMBINED PEA AND CORN SHELLING MACHINE.—Benjamin F. O'Kelley Jr., Harmony Grove, Ga. No. 547,737. Serial No. 551,544. Filed June 3, 1895.

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

E. C. Sumner, Milford, Ill.
G. E. Gee of the G. E. Gee Grain Company, Minneapolis, Minn.
J. S. Leas of the Barnard & Leas Manufacturing Company, Moline, Ill.



PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY

MITCHELL BROS. COMPANY

(INCORPORATED.)

OFFICE:

Howland Block, 184 and 186 Dearborn St.,
CHICAGO, ILL.

Subscription Price, - - - \$1.00 per Year.

English and Foreign Subscription, - - 1.50 " "

English and Foreign Subscriptions may be sent to W. H. Smith & Son, 186 Strand, London, W. C., Eng.

A. J. MITCHELL, - - - Business Manager.

HARLEY B. MITCHELL, - - - Editor.

CHARLES S. CLARK, - Assistant Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., OCTOBER 15, 1895.

THE grain dealers of Iowa seem to have become thoroughly aroused to the advantages of organization, and both of the associations of that state are now at work.

A CURIOUS spectacle was seen on the Thames at London, not long since. A group of grain warehouses near Blackfriars Bridge were burning. They were at the water's edge, and as they burned a black mass was seen floating in the river, making way from the flame. The mass was composed of thousands of rats cut off from escape on the land side of the warehouses.

THE huge speculation in South African mining shares, known as "Kaffirs," is on such a tremendous scale and is absorbing so much attention and money, that all other speculative interests are likely to suffer momentarily when the inevitable collapse comes. When a slight break occurred the other day, wheat, cotton and coffee felt the effects as well as American railway shares. But the wisest heads think the ill effects of the collapse of this second South Sea bubble will be but temporary while American stocks and products will be benefited in the long run.

WISCONSIN has a new law regarding weights and measures which grain dealers will do well to heed, as the state standards are the legal weights. The changes were made for the commendable purpose of securing uniformity with other states. The weight of a bushel of corn meal is changed from 48 to 50 pounds, flaxseed from 56 to 55 pounds, sweet potatoes from 55 to 54 pounds, buckwheat from 50 to 48 pounds. A barrel of potatoes, instead of representing a quantity equal to 100 quarts dry measure, is to be 172 pounds. Now if other

states will do likewise it will relieve the trade of some unnecessary complications.

ELEVATOR men at some Iowa points have been compelled to close their elevators because they are full and no cars can be obtained to ship the grain. Truly a pretty state of affairs. Some of the railroad officials seem to be laboring under the delusion that the state chartered their road for the purpose of inconveniencing the shippers and not for their accommodation.

IOWA elevator men propose to organize a mutual fire insurance company to carry the fire risks on their elevators and contents. They say that the insurance companies have advanced rates beyond reason and wholly out of proportion to the risks assumed, hence their only remedy is to form a company and insure their own risks, which they think can be done much cheaper than to pay the demands by the old-line insurance companies.

THE District Court at St. Paul has reversed the order of the Railroad and Warehouse Commission establishing certain freight rates on grain. A farmer in Northern Minnesota applied to the Commission for a reduction in the rates on grain, and after a hearing the Commission made a new general schedule which the court has now overruled. The freight rates of the Great Northern have been maintained at an exorbitant figure too long and a reduction must come soon.

TRACK scales should not be used for weighing grain when hopper scales can be secured. The knives of track scales are easily dulled by switching cars over it, and if not covered the scales will frequently get out of order, as rain, sleet, hail, snow and ice will prevent correct weighing. The wind blowing upon the cars will also interfere, and the weight of the empty car is frequently changed by rain and repairs, so it is evident that track scales are not the best for weighing grain.

THE Bloomington, Ill., *Pantagraph*, which, by the way, is one of the best papers published in the West, has been undertaking an investigation of the amount of old corn in the farmers' hands in the rich country of which Bloomington is the center. It has found large quantities of old corn in the hands of farmers, much of which is coming rapidly to market, though many of the farmers insist that they will keep their old corn yet another year before disposing of it at present prices.

SOME of the country newspapers have dropped onto a new scheme for inducing the local grain buyers to advertise. They will praise the dealers of neighboring towns for paying high prices for grain and denounce the local dealers for not paying the top of the market ruling at grain centers. It might prove a profitable investment for dealers to publish a review of the local market in the local paper each week. It would keep their business before the grain producers as well as silence the blackmailers.

THE best wishes of the entire trade will go out to the Miller Grain and Elevator Company of St. Louis, which has sued the Louisville & Nashville Railroad Company et al. for \$53,500 damages for a delay of three weeks in transporting 100,000 bushels of wheat and 150,000 bushels of oats to the seaboard in 1891. Wheat declined 18 cents and oats 10 cents per bushel, and the loss due to other causes amounted to \$20,500. Several suits brought against carriers for loss due to delay of grain in transit have been successful and every new decision in favor of a shipper prompts carriers to be more careful of the shipper's rights.

THE FALLING OF COUNTRY ELEVATORS.

Every autumn we expect to announce the fall of a few elevators which have been erected by country barn-builders who know nothing of the strains to which a grain elevator is subjected, but we are seldom called upon to report so many elevators dropping their load as is recorded in this number. The country elevator man may save \$50 or \$100 by letting his contract to the barn carpenter, but the chances are greatly in favor of his losing every dollar he puts into the elevator.

There are a number of able engineers who have made a special study of the convenient arrangement and the economical construction of grain elevators. They can easily determine the exact strains the different parts of an elevator will be subjected to and know how to prevent its bursting or falling. By the proper arrangement of the machinery and the power plant, power is saved and the danger of fires from friction is greatly reduced.

These engineers design and make working plans for many elevators they do not build, so there is no excuse for country dealers to pay for barn builders' experiments. Even if the barn builder does succeed in erecting a house which will stand, it will be way behind the times and will have none of the modern conveniences or appliances for facilitating the handling and improvement of grain. The poorly constructed and arranged house is always the most expensive in the end, and it will always be more satisfactory to pay for the experience which secures a first-class house than to pay for that which may secure only a heap of lumber and grain.

THE APPROACHING CAR FAMINE.

With some roads already suffering from a car famine and with all of the grain carriers threatened with a famine that is confidently expected to exceed all former famines, shippers have many unpleasant things to look forward to. They will have to fight to get cars for their grain and then fight to get them delivered at destination.

The old unsettled questions of the equitable distribution of cars among shippers, delay in transit and demurrage will again be pushed upon the trade for discussion. Carriers will hold empties at competing points so as to be prepared to take advantage of the other lines, and will compel the shipper who is so unfortunate as to have but one outlet for his grain to wait. The law and fairness forbid discrimination, so the first applicants for cars should in justice be the first supplied.

Corn is not likely to spoil in transit this year as it is unusually dry, so carriers will not be troubled with suits for damages to corn delayed in transit, but shippers and receivers may arouse themselves to their duty and seek to attempt to collect demurrage for delaying grain in transit and collect for damage to business.

Those who profit by experience will decline to sell for delivery at any future time in a distant market. The only thing they can safely contract to do is to order cars for the shipment of the grain at a stipulated time, or else sell f. o. b. cars at point of shipment and order cars several weeks ahead of time. The last time the trade was afflicted with a grain blockade and car famine many shippers lost thousands of dollars in interest on investments alone, and others who had sold at a good price had the grain refused when it arrived at destination because it was so long in transit.

One trick practiced by some carriers during the car famines of the past was to delay a number of different shipments and then deliver them at the same time. If the receiver did not unload all of them within the required 48 hours he would have to pay demurrage. If the demurrage-charge was made reciprocal any delay by

one party to the contract would offset a delay by the other, day for day. A reciprocal demurrage charge with a bill of lading or an agreement requiring carrier to transport goods at the average rate of 100 miles in 24 hours and to pay the usual demurrage charge for any delay of the goods in excess of 48 hours would be reasonable and fair and would surely prompt carriers to expedite the delivery of freight.

PUBLIC ELEVATOR MEN CANNOT STORE THEIR OWN GRAIN.

The decision of the Illinois Railroad and Warehouse Commissioners ordering the Clerk of the Circuit Court to revoke the licenses of George A. Seaverns, South Chicago Elevator Company, Santa Fe Elevator Company, Rock Island Elevator Company, Central Elevator Company, Keith & Co., Chicago Elevator Company, National Elevator and Dock Company, Chicago and Pacific Elevator Company for dealing in grain stored in their own public elevators was received with pleasure by the trade at large. The practice is contrary to law and reason and should not be permitted.

The Board of Trade has decided against the practice and until its Board of Directors take a different stand it will fight against the dealing in grain by public elevator men.

The elevator men have applied to the Circuit Court for writs of certiorari asking that the commissioners be required to certify and bring into court a transcript of all the proceedings in the case, which it is charged were irregular and illegal. This has not been done and the elevator men are ignoring all laws and agreements and dealing in grain more openly than ever.

SOME MORE "SURE THINGS."

One would naturally imagine that the repeated exposures of the swindling operations of bogus brokers would have discouraged these gentry. But, on the contrary, they have been unusually active the past two months. Their advertisements in country papers have not been so numerous, but they have scattered circulars broadcast—circulars of the deceptive, type-written style, which, with some people, carry vastly more weight than if printed on a job press in brier or long primer type. There is no way of gauging the actual amount of cash sent to bogus firms in response to these circulars and advertisements; but the fact that Secretary Stone of the Chicago Board of Trade has received 1,500 letters of inquiry since advertising that he would answer letters of that kind as to the standing of firms advertisements is suggestive. It must be remembered that the letters received by Secretary Stone are from intelligent people who read the papers. There is no means of telling what sort of a harvest the bogus firms reaped from the unintelligent who read the papers only cursorily or not at all. The speculative instinct is not confined to the intelligent, nor are the non-reading class without means. It is this fact that furnishes the opportunity to the bogus broker.

Still it is difficult to see how anyone could be caught by a bait like the following, taken from one of the type-written circulars sent out from Chicago:

The following table shows what \$10 will amount to for each 1½ cent advance if pyramided or reinvested each time. The extra ½ cent pays the commission, leaving a net profit each time:

Invest originally 1 cent margin on 1,000 bushels.	\$ 10
After ½ cent advance you will have.....	20
After 2½ cents advance you will have.....	40
After 3½ cents advance you will have.....	80
After 4½ cents advance you will have.....	160
After 5½ cents advance you will have.....	320
After 6½ cents advance you will have.....	640
After 7½ cents advance you will have.....	1,280
After 9 cents advance you will have.....	2,560
After 10½ cents advance you will have.....	5,120

Nevertheless, at least one man, and a tolerably well-informed man at that, sent \$20 on the

strength of this "pyramid" suggestion. The pyramid never got beyond the first course; by some miraculous interference, wheat went down and "exhausted" the margin.

But about the thinnest circular we have yet seen is the product of a Chicago firm which "guarantees" profits. It has been sent out the present month and following are a few choice extracts:

We have found from experience that the most successful plan of speculation is the one that will take advantage of anything that is dealt in on the Board of Trade, so long as a profit can be made from such a transaction, and not to confine the deals to any one commodity, such as wheat, corn or provisions. It is often the case that during a single day's trading there would be splendid chances to make money in provisions or corn, but if you confine your trading simply to wheat, the other chances would be lost, and at the same time the wheat market might be a losing one for you.

We believe that in order to work up a successful business in your town it is to our advantage to have someone who has speculated through us and made money. This would bring us a great many customers that we could not otherwise get, and to obtain this first customer we will make you the following offer:

We will accept not less than \$50 nor more than \$100, to be used by us for a period of three months, the management of it to be left entirely to us for that time; and we guarantee to make you at least a certain specified amount of profit, as follows:

On \$50 a profit of not less than \$100.
On \$75 a profit of not less than \$200.
On \$100 a profit of not less than \$300.

You will also be entitled to whatever profit there may be above the amount guaranteed.

We firmly believe that the profits named above can be doubled if the markets are at all favorable. The amount of guaranteed profits are net to you above all losses and commissions, and in addition to your original investment.

In explanation of this remarkable piece of generosity, the writer of the circular explained to a reporter that it was an "advertising scheme," that he could afford to live up to his guarantee, even at a loss, on account of the business it would bring him. In other words, he was simply doing what the "Fund W" people did years ago. It is needless to say that while his circular carries the implication that he is a member of the Board of Trade, he is not, and is not amenable to its rules.

We do not imagine that many of the readers of a journal like the AMERICAN ELEVATOR AND GRAIN TRADE are likely to be deceived by the specious promises of unknown firms, pretending to have a sure thing. But they should warn friends and acquaintances and aid in breaking up one of the most gigantic forms of swindling that has ever cursed this country.

DISINTERESTED WEIGHMEN AT TERMINAL ELEVATORS.

The demand of the Illinois Grain Dealers' Association for official weighers at Chicago elevators was promptly supported by the Receivers' and Shippers' Association and by the Board of Trade. It was not done in a half-hearted way, but with a determination to win what the country shippers asked for. Even now the number of elevators where public weighers are employed is double what it was before, and few important places remain where public weighmen are not employed.

A complete list compiled by the public weighmaster of the Chicago Board of Trade October 14 is published in this number. The Chicago Sugar Refinery Company, which has become notorious for its short weights, is now the most flagrant offender and the Chicago receivers are making a special fight upon it. Many have refused to sell to it and no doubt the others will do likewise. As the receivers have been given more trouble by short weights at the refinery that at all the other houses combined, the action of the refinery in refusing to employ public weighmen comes with especial poor grace. If the refinery does not give public weights soon it may be necessary to secure the enactment of a state law providing for public weighmen in all grain

elevators, and expert scale inspectors, as is done in Minnesota.

For many years Chicago has had a bad reputation for short weights, and as the shortages have been growing in size and frequency its reputation has become so black as to scare away many shipments of grain which would have been consigned to the Chicago market had the shippers any assurance of correct weights. Chicago does not deserve, nor can it expect to receive grain which can be shipped to Detroit, Toledo, or any other market with a good reputation for correct weights. As long as the shortages reported are as bad as they have been during the last year shippers will continue to ship their grain elsewhere or instruct the consignee to sell only on the condition that public weights will be given.

The country shippers have it in their power to dictate who shall weigh their grain at terminals, and if they earnestly desire honest weights now is the time to demand them. The Illinois Grain Dealers' Association has declared in favor of official weights, and in this stand it should receive the active support of every country shipper. If the services of disinterested weighmen are ever to be secured now is the time to do it. No shipper could hesitate or delay a minute, but each should promptly write his commission merchants in Chicago and insist that his grain be sold according to his own or the official weights.

ROUTE FOR EXPORT GRAIN.

Next month New York will ballot on the proposition to bond the state for \$9,000,000 to deepen the Erie Canal and lengthen the locks so that the canal boats can take a full load and travel at a greater speed. The action of the people of New York is of much interest to the grain shippers of the West, for the defeat of the proposition will be the first step toward abandoning the Erie Canal, which has done so much for the export grain trade of New York City, and kept the freight rates between that city and Buffalo at a low figure.

When the Erie Canal has been abandoned much of the export grain trade will naturally drift to Montreal via an all water route or be divided between the water route and the principal Atlantic ports. New York will no longer get a lion's share of the export grain trade and Buffalo elevators will be kept in idleness by a greater power than the notorious pool. New York has it in her power to say which way the grain shall go.

The irregular dealer has polished up his scoop shovel, swept out his office and put it on his head preparatory to a winter campaign for the regular dealers' corn shipments. When the country elevator man is made a special agent of the carrier for the receipt of grain for storage and shipment, the day of the man-with-a-scoop will be a thing of the past.

The Grain Standard's Board met at Winnipeg recently and selected standards to guide the inspectors in grading the grain of this year's crop. The inspectors are also governed by an act of the Canadian Parliament, but the Board meets each year after harvest and selects new standards, so those connected with the trade have to learn the grades anew each year. This annual change of the grades naturally causes much confusion and does not always meet with the approval of the members of the grain trade. Soon after the standards were fixed for the crop of 1895 the Winnipeg Grain Exchange adopted resolutions asking for changes in the Board and a reduction of its membership. Other changes were also asked for, but as yet nothing has been granted, although the trade of the Northwest seems to be with the Exchange.

EDITORIAL

MENTION

THE grain trade needs a national organization.

INSIST upon official weights or the acceptance of shipper's weights.

COOPER your cars well and you will prevent many large shortages.

DOCKAGE for future shrinkage by public elevator men should be abolished.

DEMURRAGE to be a fair charge should be paid by either party to the contract who causes delay of rolling stock or merchandise.

THE Illinois Grain Dealers' Association will meet at Decatur, Thursday, October 17. Every regular dealer of the state should be present and help along the good work.

THE flaxseed crop of Minnesota, Iowa, the Dakotas, Nebraska and Kansas is estimated at over 15,000,000 bushels, but much of it has been spoiled by being rained upon in the stack.

THE winter wheat markets are adopting new grades to attract the hard spring wheat. Some of them had received so little spring wheat in the past that no provision had been made for the grading of it.

COVER your wagon scales and protect the wagon from the wind and the scale platform from the rain, sleet, snow and ice. The saving in one winter's weighing would be enough to pay for a good shed.

THE Grain Shippers' Association of Northwestern Iowa have declared against shortages and in favor of disinterested weighmen. A similar stand by a few more associations would help along the work.

THE grade known as No. 1 Northern Spring Wheat is deliverable on sales of No. 2 Spring Wheat, in accordance with a resolution passed by the directory of the Chicago Board of Trade, recommending the change.

THE broom corn growers of Kansas are said to be holding their broom corn for \$60 a ton. This is the first time that the hold your wheat circular insanity has attacked the broom corn growers of the Southwest.

THE grain dealers of every state should have a strong association, with energetic, aggressive officers, and the officers of the different state associations should confer with one another upon questions of national importance, secure united action of the different associations upon such matters and thereby advance the common interests of all dealers.

THERE has been a great boom in lake freights, the immediate cause of the demand for vessels being the iron ore trade. Corn rates have reached 4 cents from Chicago to Buffalo. The shorts in the lake freight market were obliged to pay the top figure for corn room. Rates are just about double those of a year ago. One of the anomalies of the situation is that in the past

few days it has been quite as cheap to ship oats by all rail to New York and the seaboard as by lake and rail.

A SET of good grain tables for reducing pounds to bushels and dockage tables will greatly reduce the work of the elevator man, but the adoption of the cental of 100 pounds as the standard unit of measure for grain would greatly simplify the business as well as reduce the work of conducting it.

VESSELMEN are convinced that vessels for lake freight have reached their maximum size, and that few, if any, boats will be built for the next few years over 400 feet. There is a limit somewhere, and from 350 to 400 feet is declared to be the utmost length that the requirements of lake traffic will admit of.

IT is said that the fine white crystals which are occasionally seen in the butts of cornstalks grown on rich land have been found to be salt-peter. It is claimed, moreover, that many cases of poisoning among cattle may be traced to this source. If the scientific sharps persevere it will soon be unsafe to eat anything.

AND now it is proposed to compensate for the possible loss of water and the reduction of the level of the great lakes by the Chicago Drainage Canal, by partially damming Niagara. The proposition is simply to retard the flow of water over the Falls. It is crudely estimated that the lake level could easily be raised three feet in this way.

GEO. S. BENNETT, well known to the milling and grain trades through his former connections at Jackson, Mich., is now with John S. Metcalf & Co., grain elevator builders, engineers, etc., at 1075 West Fifteenth street, Chicago. We are glad to welcome Mr. Bennett back into the grain handling guild and have him within hailing distance.

IF country shippers, who have suffered so long from shortage and dockage, refuse to sell subject to private weights what will the contrary ones who now obstinately refuse to employ official weighmen do? In fairness they must accept the shippers' weights or employ disinterested weighmen. A refusal to accept will amount to a claim of a monopoly of honesty.

READERS who handle beans will note the strong indorsement of the Clipper Bean Cleaner published in the advertisement of Messrs. Ferrell, Prame & Ozier, Saginaw, Mich., in the present issue. This machine is meeting with unqualified success, and the manufacturers inform us that their trade in power cleaners was never so large as this year.

IT is estimated that the Chicago railroads and their branch connections have ordered 15,000 new cars, with 160 locomotives. This is not only an indication of what the roads think the carrying trade is going to be, but is an indication that the extra equipment of the roads made in 1892 is in need of renewal. Very little new rolling stock was bought in 1893 and 1894 or the early part of the present year.

THE Railroad and Warehouse Commissioners of South Dakota are threatening to make it very unpleasant for the elevator men of that state who have neglected to pay the license fee of \$1 as provided by the law enacted by the last legislature. South Dakota has always shown a disposition to do anything in its power to discourage legitimate business within its boundaries. If it would levy a tax upon the irregular dealers who go about the country beating the farmers it

would protect its citizens from a lot of sharks, and encourage the regular elevator men to provide first-class facilities for handling the grain of the state.

THE members of the grain trade would not lose so much grain if they would keep after the carriers and demand the protection of loaded cars from the petty thieves who infest the switching yards at division, junction and terminal points.

WE are indebted to F. H. Peavey & Co., the well-known grain dealers of Minneapolis, for a framed picture showing eight of the principal elevators and one of the special grain cars of this enterprising firm. This firm controls nearly 400 elevators with a combined capacity of 16,500,000 bushels, which is a larger number and greater capacity than is operated by any other company.

THE District Attorney of Superior, Wis., has brought a suit against the owner of a private Superior elevator to compel him to keep an office in that city for the transaction of business. The idea that a man has not the right to keep his office where his business interests or his pleasure dictates is absurd and cannot be expected to stand the test of the courts. With a public elevator under state supervision it is different.

A FAIR deduction from the government crop report of October is an increase in the wheat production of the entire country of about 21,000,000 bushels, bringing the total up to 423,850,000 bushels. The October report would reduce the September estimate of corn somewhat, but not enough to cut any figure in a crop of such vast proportions. With oats the increase over the September estimate is 100,000,000 bushels.

MANY shortages may be prevented by marking the kind and weight of grain and initial and number of car upon two cards and nailing them upon the side doors of the car. When the car is received at the elevator the foreman of the unloading force will send the card on the door opened to the weighman, and if his weighing of the grain does not correspond with the shipper's he will investigate the matter before the grain is dumped from the scale hopper and its identity lost.

HERE are two views of the wheat situation, expressed the same day by two men both prominent in the trade: The bull man says there never has been such a milling demand for wheat. The mills at Minneapolis and those that buy there need a million and a half bushels per week. If winter should come on early and stop thrashing, wheat would soar to the clouds. The other fellow says that with oats and corn about half the price of last year, with potatoes and every sort of feed for man and beast cheaper than last year and wheat 20 per cent. higher, there is no possibility of any sustained advance. And there you are.

FOR the first time in many months the report of the Bureau of Statistics on breadstuffs exported is a source of gratification, for among other things it shows an increase of \$2,384,871 in the value of breadstuffs exported in September over that of September, 1894. The total value of breadstuffs exported in September was \$11,134,378, against \$8,749,507 in September, 1894; and were valued at \$29,207,265 for the three months ending with September, against \$27,732,310 for the three months ending September, 1894, and at \$84,295,075 for first nine months of 1895, against \$94,091,095 during the nine months ending September 30, 1894. Exports of grain in September, compared with those of the same month of the preceding year

were: Wheat 5,014,213, against 6,485,205 bushels; oats 348,575, against 33,889 bushels; barley 480,481, against 305,181 bushels; corn 2,363,618 bushels; rye 36 bushels, against none in September preceding; and the exports for the three months ending September 30, compared with the same time in 1894, were: Wheat 13,529,501, against 20,579,501 bushels; oats 1,143,737 against 130,200 bushels; barley 1,270,641, against 629,537 bushels; corn 14,122,859, against 2,174,160 bushels; rye 198 bushels, against none in the same time in 1894. In the three months ending September 30, 3,402,971 barrels were exported, against 3,938,114 barrels of wheat flour; 9,634,379, against 2,261,140 pounds of oatmeal, and 62,344, against 62,961 barrels of cornmeal during same three months of 1894.

Trade Notes.

If for business you have a keen eye,
And would wish to be rich beye and beye,
Advertise what you sell;
Do it wisely and well,
And you'll have lots of wealth when you deye!

A poor illustration often blights the appearance of a good advertisement.

Printers' ink is a pretty good cement to use in laying the foundation of a successful business.

A new grain cleaning machine has been placed on the market by Robert Redel of Rochester, Minn.

Hiram Sibley of Chicago has perfected and placed on the market a new machine for cleaning smutty wheat.

W. J. Clark & Co., of Salem, Ohio, recently suffered a loss of \$18,000 from fire. An insurance of \$10,500 was carried. Business has been resumed.

A man with a reputation for lying is socially shunned, and, in like manner, the public shuns a store where it has been deceived by false announcements.

J. E. Stevens has been appointed Southwestern agent for the Edw. P. Allis Co., with headquarters at Kansas City, to succeed James R. Young, who resigned the position October 1.

An International Exposition of Industries and Fine Arts, authorized by the federal government of Mexico, will be inaugurated in the City of Mexico on April 22, 1896. It will remain open for a period of at least six months.

The following gas engine companies will be represented in the horseless carriage or motorcycle race which will take place in Chicago, Ill., November 2: Pierce Engine Company, Racine, Wis.; Thomas Kane Company, Chicago; Davis Gasoline Engine Company, Waterloo, Iowa; Sintz Gas Engine Company, Grand Rapids, Mich.

The Witte Engine, made by the Witte Iron Works Company of Kansas City, Mo., was awarded first premium at the Garden City Kansas Fair and Irrigation Convention. The company had a 10-horse power engine attached to a Goulds Centrifugal pump, elevating 2,000 gallons of water per minute 12 feet high and throwing it with immense force. The premium judges pronounced it to be the most perfect and modern piece of machinery ever exhibited at the Fair and were unanimous in voting the blue ribbon to the Witte Company.

The Jeffrey Manufacturing Company of Columbus, Ohio, has become one of the leading manufacturing enterprises of that city. The works on East First Avenue cover about ten acres of ground and give employment to about 300 hands. The business is thoroughly systematized and the plant comprises a finely equipped machine shop, a convenient and well-appointed blacksmith shop, a large pattern shop, drafting rooms and warerooms. In addition to the company's specialties for grain elevators and mills, it does a considerable business in the manufacture of electric motors for electric coal mining plants and in the handling of mill and mining supplies. The officers of the company are: J. A. Jeffrey, president and general manager; R. G. Hutchins Jr., vice-president;

Charles W. Miller, secretary; H. B. Dierdorff, superintendent; Cyrus Robinson, engineer.

The A. Maritzen Company, architects, engineers and contractors at Chicago, in addition to the services of Aug. Maritzen, has secured a staff of very able assistants, all of extensive experience, and is prepared to undertake contracts for the erection of grain elevators, breweries, malt houses and plants in every line.

The Dayton Gas Engine and Manufacturing Company of Dayton, Ohio, recently sold one of its high grade engines to the Stilwell-Bierce & Smith-Vaile Co. of Dayton, which shipped it to New Orleans, where it will be used to run an ice plant which the company has erected at that place. The engine was found to be entirely satisfactory after a thorough test. The demand for the Dayton Gas and Gasoline Engines continues to be good and the company reports a good business in supplying grain elevators and manufacturing plants.

The Todds & Stanley Mill Furnishing Company at St. Louis, Mo., has more business on hand at present than for some time past. The company is furnishing the machinery and doing the millwright work for large additions to the Farmers' Elevator and for the Buschman Elevator at St. Louis, besides furnishing elevating machinery for Grone & Co. In addition to this the company is engaged on a number of contracts not directly in the line of elevator work both at St. Louis and at different points throughout the Southwestern states.

Readers will find in this number the advertisement of a new firm, Moore & Lorenz, manufacturers of elevator buckets, elevator bolts and general elevator supplies, at 43-49 South Canal street, Chicago. The firm was established on Aug. 6, 1895, and both members have had a long experience in this line of work. The bucket which they make is light, yet strong and durable. It has given perfect satisfaction in the elevators of Chicago where it is in use. The firm has already shipped supplies to New York and Boston and as far west as Portland, Oregon, also to many intermediate points.

We regret to learn of the sudden death of Eugene Langen, one of the noted millionaires of Cologne, and one of the directors of the Otto Gas Engine Works of Philadelphia, on October 2, of heart failure, at his country seat, Elsdorf, not far from Cologne. Mr. Langen was one of the largest beet sugar manufacturers in the world, acquiring by that business about \$20,000,000 in American money. Besides this he had a large business, and was a director of the Gas Motoren Fabrik Deutz, the largest of its kind in Germany. He had many decorations conferred upon him for his ingenuity and enterprise, one being from Emperor William I. He was only once in the United States, in 1894, when the firm of Schleicher, Schumm & Co. ceased to exist, and the Otto Gas Engine Works were incorporated, which firm is now so well known throughout the principal cities of the globe. He was about 60 years old, and leaves a family of twelve children, one of whom, Gustave Langen, is president of the Otto Gas Engine Works.

The Niagara Falls Hydraulic Power & Manufacturing Company has just contracted with James Leffel & Co. of Springfield, Ohio, for four of their Improved Double Discharge Horizontal Shaft Turbine Wheels, of 8,000 horse power capacity, under a maximum head pressure of 218 feet. This is far the largest head under which turbines of large capacity have ever been applied in this country or elsewhere. These wheels will drive eight large electrical generators; one being placed on each side of each wheel, connecting direct to the horizontal shaft of the turbine, without gears or belting; the electrical current being used for power and lighting purposes. This is the second large order for turbines built by James Leffel & Co. for Niagara Falls: there being already several of their wheels of 1,200 horse power each, in the Cliff Paper Company's new mills, located at the foot of the cliffs, near the tunnel. The Leffel Company are building also four of their Cascade Wheels, for one company, to be operated under 730 feet head; a part of these wheels being connected direct also to generators, for power in mining operations; the Cascade Wheel being essentially and entirely different from the turbine,

operating upon an impulse and reaction principle. These Cascade Wheels will have an aggregate capacity of 600 horse power.

The many friends of the Heidenreichs will be pleased to learn that they have organized a new company with a capital stock of \$25,000 to be known as The Heidenreich Construction Company. E. Lee Heidenreich is president and S. Lee Heidenreich is secretary and treasurer. The company will design and construct grain elevators of any capacity and will also build malt houses, breweries and other heavy structures. The indomitable pluck of these well-known elevator builders is to be admired. They have been engaged in building elevators a number of years and some of the best elevators of the country bear evidence of their ability to construct first-class, well-arranged, modern elevators.

Grain Dealers' Associations.

GRAIN SHIPPERS' ASSOCIATION OF NORTHWESTERN IOWA.

President, T. M. Logan, Little Sioux; secretary and treasurer, F. D. Babcock, Ida Grove.

SOUTHERN ILLINOIS GRAIN BUYERS' ASSOCIATION.

President, W. D. Sparks, Alton; vice-president, J. E. Duffield, Jerseyville; treasurer, W. B. Pierce, Alton; secretary, G. E. Brown, Brighton.

ILLINOIS GRAIN DEALERS' ASSOCIATION.

President, John Crocker, Maroa; vice-president, E. R. Ulrich Jr., Springfield; treasurer, F. M. Pratt, Decatur; secretary, B. S. Tyler, Decatur.

CENTRAL IOWA GRAIN DEALERS' ASSOCIATION.

President, Allen Smith, Boone; vice-president, B. A. Lockwood, Des Moines; treasurer, M. McFarlin, Des Moines; secretary, M. T. Russell, Des Moines.

THE GRAIN RECEIVERS' AND SHIPPERS' ASSOCIATION OF CHICAGO.

The officers of the Association for 1895 are: John Hill Jr., president; I. P. Rumsey, vice-president; P. H. Eschenburg, secretary; Wm. Nash, treasurer.

OHIO GRAIN DEALERS' ASSOCIATION.

President, Daniel McAlister, Columbus; vice-president, J. B. Van Wagener, London; treasurer, Jesse Brundige, Kingston; secretary, Huntington Fitch, Columbus.

Special Notices.

CORN SHELTER AND CLEANER FOR SALE.

For Sale—No. 1 Victor Sheller and No. 1 Barnard's Improved Corn Cleaner, capacity 400 bushels per hour. One hundred feet 13-inch belt, 12x7 inch cups 18 inches apart. All first-class. Address

CRABBS & REYNOLDS, Crawfordsville, Ind.

A remarkable incident is noted at Plainfield, Wis., by farmers who have raised a second crop of oats from only one sowing. The first crop of oats this season was very short, and the crop seemed to ripen very unevenly, especially on knolls and high ground, where drouth affected the crop badly. After harvest the oats came up, or rather branched out from the old roots, and in two weeks the fields were as green as in June, and presented the usual appearance.

Kansas overflows with corn this year. They had a grand corn carnival at Atchison in which corn in its various forms reigned supreme. Every public edifice, every business house and almost every private residence was profusely decorated with corn, and thousands of people wore fantastic garbs made of corn and corn husks. A procession which had at its head a banner inscribed "A Farmer's Dream," and extending a block long, was a walking field of corn shocks.

County commissioners of other counties are adopting the system put in force by Brookings county to collect the seed grain debts of the farmers who borrowed from the county. It consists in giving every grain dealer in the county a list of the debtors with instructions to collect all amounts due from each before they buy a cent's worth on their own account. Each grain buyer is given power to act for the county as agent and issue receipts.—Record, Elkton, S. D.

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago since September 14 has been as follows:

Sept.	NO. 2 RED W. WHT. WHEAT.		NO. 2 SFG CORN.		NO. 2 CORN.		NO. 2 OATS.		NO. 2 RYE.		NO. 3 BARLEY.		NO. 1 FLAX SEED	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
14	57	57	58	58	31 1/2	35 1/2	19 1/2	19 3/4	...	...	32	32 1/2	93	95 1/2
15	...	...	...	...	31 1/2	35 1/2	19 1/2	19 3/4	...	...	32	32 1/2	93	94
16	...	...	57	57	32 1/2	33 1/2	19 1/2	19 3/4	...	...	30	30	93	94
17	58	58	...	...	32 1/2	33 1/2	19 1/2	19 3/4	...	...	32	32	93	96
18	5 3/4	59 3/4	...	...	32 1/2	33 1/2	19 1/2	19 3/4	...	...	32	32	93	96
19	60	60	59 1/2	59 1/2	32 1/2	33 1/2	19 1/2	19 3/4	...	...	32	32	95	95 1/2
20	...	...	59	59 1/2	32 1/2	33 1/2	19 1/2	19 3/4	...	...	28	28	95	96
21	58 1/2	58 1/2	58 1/2	58 1/2	31 1/2	32 1/2	19 1/2	19 3/4	...	...	40	40	95	96
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	...	...	58	58	31 1/2	32	19 1/2	19 3/4	...	...	31	33	97 1/2	98 1/2
24	58 1/2	58 1/2	59	59	31 1/2	31 1/2	19 1/2	19 3/4	...	...	40	25	30	100
25	...	...	60	60	31 1/2	32	19 1/2	19 3/4	...	...	39	33	101	103 1/2
26	60 1/2	62 1/2	60	60	31 1/2	32 1/2	19 1/2	19 3/4	...	...	40	30	103	104
27	...	...	60 1/2	61	31 1/2	32	19 1/2	19 3/4	...	...	41 1/2	24 1/2	33	96
28	...	...	61 1/2	62 1/2	31 1/2	32 1/2	19 1/2	19 3/4	...	...	41 1/2	26	37	96 1/2
29	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	...	...	62	62 1/2	31 1/2	32	19 1/2	19 3/4	...	...	42	25	40	95
31	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	61 1/2	61 1/2	61	61 1/2	30 1/2	31 1/2	18 3/4	18 3/4	...	...	41	25	37	94 1/2
2	62	63 1/2	61 1/2	61 1/2	30 1/2	31 1/2	18 3/4	18 3/4	...	...	41 1/2	25	40	95 1/2
3	59 1/2	61	59 1/2	61	31	31 1/2	18 3/4	18 3/4	...	...	41	26	39	97 1/2
4	61	61	60 1/2	60 1/2	30 3/4	31 3/4	18 3/4	18 3/4	...	...	41 1/2	...	...	96 1/2
5	60	60	59 1/2	59 1/2	30 1/2	31 1/2	18 3/4	18 3/4	...	...	...	...	...	96
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	61	61	58 1/2	59	29 1/2	30 1/2	17 3/4	18	...	...	41 1/2	29	30	94 1/2
8	59 1/2	60 1/2	59	60	29 1/2	30 1/2	18	18	...	...	29	29 1/2	94 1/2	94 1/2
9	...	...	59	59 1/2	29	29 1/2	18	18	...	...	40 1/2	41	27	34
10	...	...	59 1/2	59 1/2	28 3/4	28 3/4	18	18	...	...	41 1/2	...	...	95 1/2
11	...	...	60 1/2	60 1/2	28 3/4	29	17 3/4	18	...	...	41 1/2	31	32	95 1/2
12	...	...	60 1/2	61 1/2	29	29 1/2	18	18	...	...	39 1/2	40	31	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	59 1/2	59 1/2	29	29 1/2	18	18	...	...	39 1/2	39 1/2	...	95

* Free on board or switched. † On track.

During the week ending September 14 Prime Contract Timothy sold at \$4.00@4.20 per cental; Prime Contract Clover Seed at \$7.00@7.75; Hungarian at \$0.70@1.00; German millet at \$0.60@0.80; buckwheat at \$1.25@1.50 per 100 pounds.

During the week ending September 21 Prime Contract Timothy sold at \$3.90@4.10 per cental; Prime Contract Clover Seed at \$7.25@7.40; Hungarian at \$0.65@0.80; German millet at \$0.60@0.80; buckwheat at \$1.00@1.25 per 100 pounds.

During the week ending September 28 Prime Contract Timothy sold at \$3.45@3.90 per cental; Prime Contract Clover Seed at \$7.00@7.25; Hungarian at \$0.65@0.80; German millet at \$0.60@0.80; buckwheat \$0.75@1.15 per 100 pounds.

During the week ending October 5 Prime Contract Timothy sold at \$3.25@3.45 per cental; Prime Contract Clover Seed at \$7.00@7.10; Hungarian at \$0.60@0.80; German millet at \$0.60@0.80; buckwheat at \$0.75@0.90 per 100 pounds.

During the week ending October 12 Prime Contract Timothy sold at \$3.45@3.75 per cental; Prime Contract Clover Seed at \$6.75@7.00; Hungarian at \$0.60@0.80; German millet at \$0.60@0.80; buckwheat at \$0.80@0.90 per 100 pounds.

RECEIPTS AND SHIPMENTS AT DULUTH.

The receipts and shipments of grain and hay at Duluth, Minn., during the 4 weeks ending September 28, as compared with the same period of the preceding year, were, according to Frank E. Wyman, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels...	8,924,040	4,907,291	6,949,100	4,497,859
Corn, bushels...	77,417	52,261	47,072	13,117
Oats, bushels...	464,313	460,346	53,413	72,741
Barley, bushels...	79,573	4,337	70,213	...
Rye, bushels...	717,220	247,719	174,356	120,569
Flaxseed, bushels...	515,710	617,438	846,335	917,804
Flour, barrels...	407,435	367,833	...	...

*Duluth and Superior.

RECEIPTS AND SHIPMENTS AT SAN FRANCISCO.

The receipts and shipments of grain and hay at San Francisco, Cal., during the month ending September 30, as compared with the same period of the preceding year, were, according to T. C. Friedlander, secretary of the Produce Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, centals...	630,726	1,113,944	540,204	573,881
Corn, " "	8,940	6,555	1,684	5,024
Oats, " "	99,938	67,126	2,136	2,040
Barley, " "	328,408	271,128	223,220	143,652
Rye, " "	4,372	2,613	...	...
Flaxseed, bushels...	13,932	3,943	...	...
Hay, tons...	15,569	17,758	...	...
Flour, bbls...	101,876	79,804	79,420	64,514

RECEIPTS AND SHIPMENTS AT CHICAGO.

The following table, compiled by George F. Stone, secretary of the Board of Trade, shows the receipts and shipments at Chicago during September, 1895 and 1894, of seeds, hay and broom corn:

	Timothy, lbs.	Clover, lbs.	Other grass seeds, lbs.	Flaxseed, bu.	Broom corn, lbs.	Hay, tons.
1895 ..	10,467,202	457,616	1,690,892	1,876,123	477,950	23,472
1894 ..	6,103,263	833,195	1,41,430	947,374	2,404,090	22,159
Shipts.						
1895 ..	13,318,925	288,253	645,357	1,353,817	462,610	4,066
1894 ..	9,319,422	608,332	993,613	551,431	1,156,484	2,468

RECEIPTS AND SHIPMENTS AT MINNEAPOLIS.

The receipts and shipments of grain and hay at Minneapolis, Minn., during the 5 weeks ending October 5, as compared with the same period of the preceding year, were, according to G. D. Rogers, secretary of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels.....	12,391,450	10,634,100	1,572,390	778,060
Corn, bushels.....	53,430	77,420	6,210	4,940
Oats, bushels.....	815,610	488,810	339,510	229,620
Barley, bushels.....	272,170	166,800	39,800	142,920
Rye, bushels.....	66,260	61,870	53,080	10,400
Flaxseed, bushels....	532,210	154,320	283,350	32,100
Hay, tons.....	1,916	2,973	121	70
Flour, barrels.....	8,996	9,609	1,136,515	1,045,250

RECEIPTS AND SHIPMENTS AT BUFFALO.

The receipts and shipments of grain and hay at Buffalo, N. Y., during the month ending September 30, as compared with the same period of the preceding year, were, according to Wm. Thurstone, secretary of the Merchants' Exchange, as follows:

Articles.	Receipts by lake.		Shipments by canal.	
	1895.	1894.	1895.	1894.
Wheat, bushels...	7,476,670	6,147,708	1,635,260	4,412,523
Corn, bushels.....	5,351,672	2,713,339	721,561	1,180,399
Oats, bushels.....	1,772,203	2,865,750	253,655	1,262,770
Barley, bushels...	762,680	1,547,097	249,431	904,715
Rye, bushels.....	70,000	113,865	...	24,814
Grass Seed, bags...	2,751	10,140	...	...
Flaxseed, *	869,855	600,540	10,763,238	5,016,672
Hay, tons.....	...	...	...	...
Flour, barrels	1,110,303	1,494,530	...	504

*Receipts are given in bush.; shipments in pounds.

RECEIPTS AND SHIPMENTS AT ST. LOUIS.

The receipts and shipments of grain and hay at St. Louis, Mo., during the month ending September 30, as compared with the same period of the preceding year, were, according to Geo. H. Morgan, secretary of the Merchants' Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels.....	1,177,964	1,090,490	459,057	225,545
Corn, bushels.....	697,216	330,380	427,838	118,302
Oats, bushels.....	1,489,146	1,095,900	611,660	136,333
Barley, bushels.....	7,684	127,448	36	5,320
Rye, bushels.....	9,096	24,256	10,698	6,224
Grass Seeds, lbs.....	...	...	...	...
Flaxseed, bushels....	...	...	...	...
Hay, tons.....	23,889	15,267	7,892	2,744
Flour, barrels.....	79,610	99,387	189,327	171,067

RECEIPTS AND SHIPMENTS AT TOLEDO.

The receipts and shipments of grain and hay at Toledo, Ohio, during the 5 weeks ending October 5, as compared with the same period of the preceding year, were, according to Denison B. Smith, secretary of the Produce Exchange, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels.....	6,790,000	2,084,000	509,000	1,693,000
Corn, bushels.....	497,000	57,000	429,000	34,000
Oats, bushels.....	95,000	102,000	78,000	61,000
Barley, bushels.....	4,000	1,000	...	3,000
Rye, bushels.....	18,000	46,000	11,000	64,000
Clover seed, bags....	20,137	23,575	4,056	5,186
Flour, barrels.....	8,253	7,981	133,540	119,100

RECEIPTS AND SHIPMENTS AT PEORIA.

The receipts and shipments of grain and hay at Peoria, Ill., during the month ending September 30, as compared with the same period of the preceding year, were, according to R. C. Grier, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels.....	120,600	99,900	43,200	38,400
Corn, bushels.....	1,120,710	705,200	485,880	76,700
Oats, bushels.....	2,065,550	663,300	1,687,150	\$15,000
Barley, bushels.....	73,500	177,200	40,600	148,400
Rye, bushels.....	6,600	6,600	2,400	6,600
Mill Feed, tons.....	885	615	3,861	4,694
Seeds, tons.....	774,000	442,589	54,640	120,000
Broom Corn, lbs.....	210,000	195,000	121,450	217,800
Hay, tons.....	3,070	2,060	1,360	465
Flour, barrels.....	20,169	22,050	22,650	22,650
Spirits & Liquors, bbls.	1,350	1,447	14,419	10,930
Syrup & Glucose, bbls.	853	1,950	22,995	39,500

RECEIPTS AND SHIPMENTS AT DETROIT.

The receipts and shipments of grain and hay at Detroit, Mich., during the month ending September 30, as compared with the same period of the preceding year, were, according to Geo. M. Lane, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels.....	296,015	629,729	296,048	393,464
Corn, bushels.....	110,722	102,316	38,180	6,619
Oats, bushels.....	122,189	228,407	27,887	126,905
Barley, bushels.....	11,600	105,623	...	...
Rye, bushels.....	8,390	9,549	12,877	25,794
Flaxseed, bushels....	2,200	1,971	...	...
Flour, barrels.....	12,225	14,680	15,820	10,360

RECEIPTS AND SHIPMENTS AT MILWAUKEE.

The receipts and shipments of grain and hay at Milwaukee, Wis., during the 5 weeks ending October 5, as compared with the same period of the preceding year, were, according to Wm. J. Langson, secretary of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1895.	1894.	1895.	1894.
Wheat, bushels.	1,423,250	902,374	904,550	73,400
Corn, bushels.	118,950	187,200	7,150	4,617
Oats, bushels.	1,060,000	790,000	767,200	725,632
Barley, bushels.	2,683,600	3,228,326	854,780	2,091,693
Rye, bushels.	130,664	112,135	41,200	54,700
Grass seed, pounds.	665,510	938,685	129,435	246,603
Flaxseed, bushels. .	107,480	119,733	58,680	20,989
Broom corn, lbs.				
Hay, tons.	2,045	1,258	90	46
Flour, barrels.	280,575	271,129	302,641	399,906

DESTINATION OF AMERICAN WHEAT EXPORTS.

The last report of the Bureau of Statistics shows that the destination of the wheat exported from the United States was as follows:

Countries.	Month ending August 31.		Eight months ending August 31.	
	1895.	1894.	1895.	1894.
United Kingdom	3,075,936	4,587,172	30,905,599	26,554,650
Germany	24,000	956,314	757,434	1,913,590
France	32,000	184,439	870,534	2,456,172
Other countries in Europe	238,649	1,969,269	7,366,760	10,963,586
Brit. North Am. Possessions	800,507	829,411	2,960,134	3,079,784
Mexico		4	2,734	2,329
Cent. Am. states & Brit. Hond	4,777	10,835	45,544	53,022
West Indies and Bermuda	2,628		9,168	7,138
Brazil	13	6	13	49
Other countries S. America	605	13	3,024	2,284
Asia & Oceania	1,790	1,162	21,711	8,731
Africa	63,180	8,024	98,322	9,401
Other countries			23	
Total bushels	4,244,085	8,546,649	43,041,000	45,050,736

DESTINATION OF AMERICAN CORN EXPORTS.

The last report of the Bureau of Statistics shows the destination of the corn exported from this country to be as follows:

Countries.	Month ending August 31.		Eight months ending August 31.	
	1895.	1894.	1895.	1894.
United Kingdom	2,555,433	224,663	17,490,450	17,097,962
Germany	516,028	24,200	3,557,139	6,877,924
France	25,714		618,640	1,557,032
Other countries in Europe	1,062,745	215,781	4,734,816	7,005,568
British North Am. Possessions	569,959	103,078	3,059,026	3,142,006
Mexico	54,314	10,467	129,542	126,661
Cent. Am. States & Brit. Hond's	6,755	12,242	78,183	300,537
Cuba	27,606	180,073	151,180	829,718
Puerto Rico		1,200	100	15,590
Santo Domingo		890	1,382	3,071
Other West Indies and Bermuda	53,508	52,487	415,865	446,962
South America	16,699	20,873	52,751	93,834
Asia and Oceania	1,772	791	5,959	6,139
Other countries			2,803	3,717
Total bushels	4,890,533	846,745	30,297,836	37,506,721

WHEAT RECEIPTS AT PRIMARY MARKETS.

The wheat receipts at nine primary markets during the 14 weeks ending October 5, for the last three years, according to the *Cincinnati Price Current*, were as follows:

	1895.	1894.	1893.
St. Louis	5,595,000	7,023,000	7,455,000
Toledo	3,351,000	10,319,000	6,981,000
Detroit	1,071,000	2,264,000	4,019,000
Kansas City	2,780,000	4,417,000	5,505,000
Cincinnati	341,000	423,000	480,000
Winter	13,138,000	24,446,000	24,440,000
Chicago	4,632,000	17,023,000	8,070,000
Milwaukee	2,629,000	1,943,000	3,355,000
Minneapolis	16,642,000	15,145,000	12,439,000
Duluth	14,311,000	10,917,000	10,567,000
Spring	38,214,000	45,028,000	34,431,000
Total, 10 weeks	51,352,000	69,474,000	58,871,000

EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from the Atlantic ports during the two weeks ending Oct. 12, as compared with same weeks last year, have been as follows:

	For the week ending Oct. 12.		For the week ending Oct. 5.	
	1895.	1894.	1895.	1894.
Wheat, bu.	942,000	882,000	638,000	1,034,000
Corn	1,463,000	139,000	1,249,600	64,000
Oats	70,000	11,000	8,000	16,000
Rye		9,000		
Flour, bbls.	310,000	324,000	333,000	259,000

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, Oct. 12, 1895, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany		12,000	60,000		
Baltimore	541,000	239,000	126,000	67,000	
Boston	159,000	119,000	16,000		
Buffalo	2,162,000	227,000	491,000	132,000	357,000
do afloat					
Chicago	15,501,000	2,821,000	602,000	161,000	113,000
do afloat					
Cincinnati	43,000	23,000	36,000	36,000	56,000
Detroit	423,000	50,000	31,000	10,000	
do afloat					
Duluth	5,407,000		99,000	77,000	682,000
do afloat					
Indianapolis	127,000	16,000	5,000		
Kansas City	956,000	6,000	23,000	18,000	
Milwaukee	512,000			51,000	182,000
do afloat					
Minneapolis	9,514,000		273,000	49,000	140,000
Montreal	260,000	2,000	63,000	3,000	
New York	4,353,000	177,000	626,000	30,000	14,000
do afloat		7,000	9,000		30,000
Oswego	40,000				65,000
Peoria	108,000	56,000	351,000	1,000	
Philadelphia	339,000	98,000	186,000		
St. Louis	852,000	50,000	323,000	13,000	
do afloat		16,000			
Toledo	1,012,000	226,000	126,000	112,000	
do afloat					
Toronto	22,000		4,000		9,000
Oo Canals	352,000	40,000	58,000		664,000
On Lakes	1,714,000	1,190,000	518,000		714,000
On Miss. River					
Total	44,481,000	5,375,000	4,029,000	760,000	3,026,000
Corresponding date, 1894	75,074,000	3,379,000	9,080,000	385,000	3,016,000

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector George P. Bunker the grain received at Chicago during the month of September, 1895, was graded as follows:

WINTER WHEAT.												
Railroad.	White.			Hard.			Red.					
	2	3	4	1	2	3	1	2	3	4	No G'de.	
C., B. & Q.....	1	..	..	..	3	..	10	71	47	17
C., R. I. & P....	..	1	..	..	2	..	9	..	4	12	10	7
C. & A.....	19	..	2	8	27	35
Illinois Central.	8	..	1	19	10	7
Freeport Div.
Galena Div. N. W.	1	..	..	..	..	5	3	..
Wis. Div. N. W.
Wabash.....	26	26	10
C. & E. I.....	1	..	11	2	..
C., M. & St. P.	1	..	..	1	1	7
Wis. Cent.....
Gr. Western....
A., T. & S. Fe..	1	10	..	..	9	9	10	4
Through & Spec	18	..	..	..	50	27	..	1
Total each grade	..	1	1	..	22	50	..	77	199	136	..	88
Total W. wheat.	2	..	..	72	..	..	..	..	..	500

Railroad.	Colo. rado.		Northern.		2	3	4	No Grade	White.		Mixed Wheat.
	2	3	2	3					2	3	
	2	3	2	3					2	3	
C. B. & Q.					15	20	2			2	1
C. R. I. & P.					6	39	104	17	4	1	1
C. & A.							1		2		
Illinois Central											
Freeport Div.						76	35		2		
Galena Div. N. W.					116	221	44		5		
Wis. Div. N. W.					2	7	8				
Wabash											
C. & E. I.											
C. M. & St. P.					40	295	31				
Wis. Cent.						2					
C. Gr. Western					4	82	11				
A. T. & S. Fe.						4	1				1
Through & Special					372	18	2		2		
Total each grade					6	588	829	152	15	3	3
Total sp. wheat					6				1,584	3	3

Railroad.	Yellow.		White.		2	3	4	No Grade.
	2	3	2	3				
C. B. & Q.	805	32	75	5	1016	50	20	10
C. R. I. & P.	313	28	70	22	491	67	19	3
C. & A.	543	144	119	23	872	155	23	1
Illinois Cent.	1615	49	496	9	942	44	6	
Freeport Div.	94	6	2		80	13	2	
Gal. Div. N. W.	127	19	12		140	12	25	
Wis. Div. N. W.	10					1		
Wabash	592	49	377	12	577	29	4	1
C. & E. I.	273	17	200	11	328	52	58	1
C. M. & St. P.	30	7	1		62	11	3	1
Wis. Central								
C. G. Western	10	4			60	11	1	
A. T. & S. Fe.	198	30	33	4	249	81	13	2
Thrh'g & Spl	269	14	33	1	256	30	17	1
Total each grd	4879	399	1418	57	5073	556	191	20
Total corn								12,623

OATS.

Railroad.	White.			2	3	White Clipped.		No G'de.
	1	2	3			1	2	
C. B. & Q.	136		530	95	104		1	15
C. R. I. & P.	236		663	15	142			42
C. & A.	39		61	63	96			7
Illinois Central	44		256	108	493			9
Freeport Div.	76		214	14	153			2
Galena Div. N. W.	591		1098	63	167		1	28
Wis. Div. N. W.	8		26		3			
Wabash	9		210	108	51			15
C. & E. I.	4		102	135	127			12
C. M. & St. P.	198		733	37	199			9
Wisconsin Central								
C. G. Western	63		189	33	38		4	1
A. T. & S. Fe.	65		138	15	45			12
Through & Special	1	127	59	38	94		6	13
Total each grade	1	1596	4279	724	1712		12	165
Total oats								8,489

RYE.

Railroad.	1	2	3	No Grade.
C. B. & Q.			19	5
C. R. I. & P.			9	4
C. & A.				2
Illinois Central			2	
Freeport Div.			4	2
Galena Div. N. W.			7	3
Wisconsin Div. N. W.			4	1
Wabash			6	1
C. & E. I.			2	1
C. M. & St. P.			5	7
Wisconsin Central			1	
C. G. Western			2	
A. T. & S. Fe.			3	
Through & Special			32	2
Total each grade			96	28
Total rye				130

BARLEY.

Railroad.

ELEVATOR

GRAIN NEWS

An elevator is to be built at Metawaka, Kan.
Send us the grain trade news of your district.
An elevator is being built at Ocheyedan, Iowa.
A new elevator has started up at Dolton, S. D.
Mills Bros. will erect a rice mill at Fenton, La.
O. S. Nickey is building an elevator at Tipton, Ind.
Dr. Cook is erecting a large elevator at Windfall, Ind.
Forbes Bros. are building an elevator at Topeka, Kan.
W. H. Snowden is building an elevator at Souris, Man.
H. C. Anderson is building a warehouse at Creston, Wash.
The Farmers' Union will build an elevator at Stockton, Cal.
J. C. Morrissey, grain dealer of Lincoln, Neb., has sold out.
J. R. Snyder's elevator at Hard Station, Ohio, is completed.
R. W. Wells will buy grain at Wenatchee, Wash., this season.
Judge Bach will build a 10,000-bushel elevator at Ficklin, Ill.
A potato starch factory may be erected at Grand Forks, N. D.
Harry Taggart has sold his elevator at Rutland, Ill., to Frank Ames.
E. H. Mason is erecting a grain warehouse at Brooklyn, Iowa.
Geo. E. Macey has established a rice cleaning plant at Orlando, Fla.
Pitt Bros. have erected a 7,000-bushel granary near Plymouth, Utah.
J. H. Carter is contemplating building an elevator at Wauke, Iowa.
Stevens & Co., grain dealers of Kansas City, Mo., assigned recently.
McDonald Bros. are engaged in the grain business at Hartline, Wash.
Thomas Brown is erecting a 35,000-bushel elevator at Faribault, Minn.
The Sexton Elevator Company is erecting an elevator at Sexton, Iowa.
Osthoff Bros., Augusta, Mo., have put in Dickey Warehouse Cleaners.
A large elevator is to be erected at Durand, Mich., and also a flour mill.
An elevator is being built at Port Stanley, Mich., for the Erie Railroad.
It is said that a stock company will build an elevator at Reedsville, Wis.
It is said that the largest grain elevator in Southern California is at Ordway.
A new elevator has been erected at Beaman, Iowa, and is voted "a beauty."
Roberts Bros., Paton, Iowa, have placed a Dickey Overblast in their house.
Glasgow & McLean have completed a grain warehouse at Mondovi, Wash.
Fred Shrader of Berlin, Neb., has purchased Hillman & Flamme's elevator.
The Marshfield Elevator Company is erecting an elevator at Carthage, S. D.
Mowery & Co., dealers in hay and grain of Salt Lake City, Utah, have dissolved.
The elevator at Sherman, Texas, has lately adopted the Dickey Warehouse Mill.
Fred Schrader has succeeded G. H. Hillman & Co., grain dealers of Berlin, Neb.
Kessey & Winton are contemplating the erection of an elevator at Milford, Iowa.
The Isaac Harter Company's steel tank elevator at Fostoria, Ohio, is completed.
Henry Smith of Sioux Valley has completed his new elevator at Chatsworth, S. D.
James Lyons and Richard Jacobson of Appleton, Wis., have purchased the Marks Elevator and Ware-

house at Kaukauna, where they will engage in the grain and hay business.
W. J. Hines has succeeded to Stevens & Carroll, grain dealers of Ragan, Neb.
The Canada Linseed Oil Company has been incorporated at Mission City, B. C.
The Orondo Shipping Company is buying grain at Chelan Falls and Troy, Wash.
Patten, Jackson & Co., grain dealers, are building an elevator at Carthage, S. D.
Patterson Bros. have succeeded Williamson & Son, grain dealers of Wataga, Iowa.
At Little Rock, Iowa, Shell & Van Eaton have put in a Dickey Warehouse Cleaner.
J. R. Berry & Co., dealers in grain, etc., at Le Mars, Iowa, have gone out of business.
The C. M. & St. P. R. R. Co.'s elevator at Blakesburg, Iowa, has been completed.
Best & Cox have succeeded to the grain business of Davis Bros. at Princeville, Iowa.
August Pigott and his son Marvin have engaged in rice business at Charleston, S. C.
The Aberdeen Mill Company is building a 40,000-bushel elevator at Aberdeen, S. D.
McDaniel & Morrow's 100,000-bushel elevator at Carthage, Mo., is about completed.
Osborn, Crosby & Co., grain and stock brokers of Minneapolis, Minn., have dissolved.
It is said that David Askegaard of Fargo, N. D., has made \$10,000 in wheat this fall.
The Marshfield Elevator Company is building a 30,000-bushel elevator at Monroe, S. D.
The Dickey Warehouse Cleaners have been put in the Bush Elevators at Hastings, Minn.
The Little Elevator at Yellow Springs, Ohio, which burned some time ago, is to be rebuilt.
S. M. Weiner, Alexandria, S. D., has adopted the Dickey Overblast for all kinds of grain.
The Northern Grain Company's new elevator at Glenwood, Wis., is nearing completion.
W. J. Livingston & Son, Windsor, Mo., have put in the Dickey Warehouse Mill to clean flax.
An elevator is being erected at Laredo, Mo., by the Chicago, Milwaukee & St. Paul Railroad.
Starkey & Keizeback have completed their new 25,000-bushel elevator at Mapleton, Minn.
A. G. West, grain commission merchant of Kansas City, has retired from the grain business.
The Keith Distillery at Raleigh, S. C., was recently seized on account of alleged irregularities.
The Scholz Milling Company, Corning, Iowa, have lately put in a Dickey Warehouse Cleaner.
The Mabel Stock and Grain Company is erecting a 16,000-bushel elevator at Caledonia, Minn.
Kennedy Bros., grain dealers, report a good business at their elevators at Esmond and Clare, Ill.
Elevators of 25,000 bushels' capacity are to be erected at Lennox, Davis, Viborg and Irene.
Hieb & Schatz, grain dealers of Tripp, S. D., have dissolved partnership, Mr. Hieb succeeding.
Parish & Jones have succeeded to the grocery and grain business of H. J. Parish at Barnard, Mo.
The Northern Grain Company of Ashland, Wis., will erect a large warehouse at Rice Lake, Wis.
L. B. Shephard & Co., dealers in grain and livestock at West Point, Neb., have gone out of business.
John H. Hundley of Louisville, Ky., has engaged in the grain commission business at St. Louis, Mo.
O. P. Le Compte, grain dealer of Concordia, Mo., has started in the grain business at Kansas City, Mo.
The Farmers' Grain Company has been incorporated at Estelline, S. D., with a capital stock of \$4,000.
The Buffalo Lake Industrial Union Elevator Company has been incorporated at Buffalo Lake, Minn.
J. R. Reeve of Hampton, Iowa, has secured control of an elevator at Gifford, where he is buying grain.
F. E. Glassburn, dealer in grain, etc., at Tampico, Ill., has purchased Marcus Thackaberry's elevator.
T. McMichael & Son recently purchased elevators at Caledonia, Spring Grove, Newhouse and Mabel, Minn.
Schooley & Tighe's elevator at Laurel, D. C., is about completed. It has a capacity of 3,000 bushels.
The Moon Elevator Company has been incorporated at St. Louis, Mo., with a stock of \$20,000, fully paid in.
The Central Elevator Company of Minneapolis, Minn., is erecting an elevator at Ogden, Iowa. At

the same place Mr. Smith will build an elevator, and a warehouse is to be remodeled into an elevator.
George Smith and Harry Northey have formed a partnership and are buying grain at Alexander, Iowa.
The St. Jean Baptiste Grist Mill & Elevator Company has been incorporated at St. Jean Baptiste, Man.
The A. P. Dickey Manufacturing Company has put in one its overblasts for F. M. Sackett at Albion, Neb.
The Hector Elevator Company has been incorporated at Hector, Minn., with a capital stock of \$25,000.
Turner & Mobberly are building an elevator at Dixie, Iowa, where they will engage in the grain business.
Schneckloth & Son have succeeded the firm of Schneckloth, Son & Co., grain dealers of Holstein, Iowa.
Frith & Co. have succeeded to the firm of Frith & Langham, dealers in seed and feed at Nashville, Tenn.
At Sioux Falls Junction, Minn., the Northern Grain Company has put in another overblast of the Dickey make.
The addition to the Farmers' Elevator at St. Louis, Mo., is completed and the machinery will soon be placed.
The Iowa Grain Company is building an elevator at Riceville, Iowa, where a grain business will be carried on.
Donlin & Griffith of the Wabash Elevator at Delphi, Ind., are putting in one of B. S. Constant's ear corn feeders.
An elevator is being built at Merritt, Ill., for Mrs. Vincent Richardson. It will have a capacity of 25,000 bushels.
C. W. Milner has gone into the hay and grain business at Salt Lake City, Utah, A. Holt & Sons having sold out.
I. E. Schermerhorn of Kahoka, Mo., will engage in the grain business at Gorin, where he is erecting an elevator.
C. S. Long's grain warehouses at Hayward's, Cal., have been equipped with a barley mill and warehouse cleaners.
I. S. Keeler has removed his rice cleaning plant from Ocala to Belleview, Fla., where he is carrying on business.
Samuel Stackhouse, a farmer of Voorhies, Ill., has purchased the Shellabarger Elevator at Milmine, Ill., for \$7,500.
J. H. Moffett of Paxton, Ill., has purchased J. L. McCurdy's interests in the elevator business at Rankin, Ill.
J. L. Adams & Co. have gone into the grain business at Anacortes, Wash., where they have leased a grain house.
Le Sage, Lottinville & Son's new elevator at Martinon, Ill., is completed. It is equipped with the Constant Dumps.
The Goodell Grain & Stock Company has succeeded J. C. Goodell, dealer in grain and live stock at Beatrice, Neb.
The Winslow Bros' Elevator Company of Chicago has certified to an increase of capital stock from \$100,000 to \$200,000.
J. P. S. Thompson & Son, dealers in grain, etc., at Navasota, Texas, have been succeeded by R. P. Thompson.
Devins & Co., grain commission dealers of Kansas City, Mo., have made an assignment. Their assets amount to \$2,000.
A. M. Van Patter is carrying on a good business at Hubbard, Iowa. In one day recently he handled 3,000 bushels of wheat.
Easton & Co. of Peoria, Ill., will build a 30,000-bushel elevator at Wyoming, which will be finished early in November.
H. Long's new elevator at Champaign, Ill., is completed and in operation. A Webster Gasoline Engine supplies the power.
The Northern Grain Company of New Richmond, Wis., has put in another overblast cleaner for their house at Cylon, Wis.
Haworth & Spang of Georgetown, Ill., write us that they are enlarging their elevator capacity and putting in new machinery.
Chaplin & Prieur, grain and hay dealers of Montreal, Canada, have dissolved partnership, R. L. Prieur succeeding to the business.
Richardson & Co. are erecting an elevator at Elsdon, Ill., on the Grand Trunk Railroad. It will be a cleaning house and will have a storage capacity of

30,000 bushels and a transferring capacity of 50 cars in ten hours. The Macdonald Engineering Company secured the contract.

J. H. Johnson, grain dealer of Metamora, Mich., is rebuilding his warehouse at that place which was destroyed by fire recently.

Jacob W. Myer recently bought at auction the feed and grain warehouse formerly occupied by W. F. Jewett at Washington, D. C.

J. S. Todd & Co. of Duluth and Minneapolis have purchased the Great Western Elevator Company's elevator at Detroit, Minn.

Edwards & Co., grain commission dealers, have opened branch offices at Metamora, Mich., which are in charge of W. P. Brown.

Gier & Belz, who lately erected an elevator at Conrad Grove, Iowa, have equipped with the Dickey Overblast for all kinds of grain.

A. L. Duncan has bought a grain elevator and lumber yard at a station on the Iowa Central Railroad just west of Keithsburg, Ill.

The O. R. & N. Co. has completed a large grain warehouse at Farmington, Wash., and has leased it to a farmers' alliance company.

The A. P. Dickey Manufacturing Company has put in warehouse grain cleaners in elevators at Franklin, Tenn., and Aboit Station, Ind.

J. B. Good, dealer in grain, coal and livestock, writes us that he has sold his elevator at Bearsdale and bought one at Forsyth, Ill.

J. S. Murrie has discontinued his store business at Grey's Lake, Ill., and will give his entire attention to his elevator and grain business.

C. Keefe & Sons, Maple Park, Ill., will erect a grain elevator and coal sheds at Virgil Center, on the Chicago & Great Western Railroad.

Seley & Earley of McGregor, Texas, have equipped their elevator with the A. P. Dickey Manufacturing Company's Warehouse Cleaners.

An elevator is to be erected at Parsons, Kan., which will have a capacity of 200 carloads, and will be equipped with corn shellers, etc.

Young Bros. are carrying on a grain business at Clarion, Iowa, where they have erected a large warehouse of 30,000 bushels' capacity.

G. C. Dodd & Co., dealers in grain, hay, etc., at Cheboygan, Mich., have dissolved partnership and the business will be discontinued.

Thieves recently entered the grain warehouse of Webster Bros. at Devon, Iowa, and carried away timothy and grain to the value of \$100.

The Globe Distillery of Pekin, Ill., which has been closed for a month, has started up again and is consuming 2,000 bushels of grain daily.

A. Baker, proprietor of a grain warehouse at Shedd, Ore., is short 3,000 bushels of wheat, and those who have wheat stored are investigating.

The Lisbon Elevator Company, Lisbon, N. D., have arranged to clean their flax with the A. P. Dickey Manufacturing Company's Overblast.

The Peoria, Decatur & Evansville Railroad will erect an elevator at Mattoon, Ill., the court having entered an order permitting it to do so.

E. G. and Ben Johnson have formed a partnership and have leased the elevator at Rowland, Iowa, where they will engage in the grain business.

Work is now being rushed on the Tacoma Land Company's new warehouse at Tacoma, Wash., but it will not be entirely completed this year.

L. G. Green has bought the George Martin elevator property at Hudson, Wis., and is fitting it up as a feed mill. He will also buy grain there.

Geier Bros. Ortonville, Minn., have put in a grain cleaner of the warehouse pattern made by A. P. Dickey Manufacturing Company of Racine, Wis.

It is reported that The Bush Company contemplates the erection of grain elevators and other storage plants along the wharf at South Brooklyn, N. Y.

The Board of Trade of Virden, Man., threatens to go into the grain business if the local buyers do not pay the full values for grain in that market.

C. L. Lund, Algona, Iowa, has adopted the Dickey Overblast for his new elevator. This makes three of these machines put in at Algona this year.

Ironside & Kerr have finished their new elevator at Roland, Man. It is run by steam, which will also be used to run a grain crusher on the premises.

The Standard Elevator Company has been incorporated at St. Louis, Mo., with a capital stock of \$75,000, by E. S. and A. H. Buschman and William Hoffman.

The members of the Wisconsin Hay and Grain Company of Milwaukee disappeared some time ago and have not been heard from. A couple of months ago two young men, John F. Harcourt and Francis

Burnett, started in business under this name, and it is said they have been carrying on a crooked business and have left many debts behind them.

The Pacific Coast Elevator Company has completed the work of raising and repairing its elevator at Garfield, Wash., and is now filling it with grain.

The Humphrey Grain Company, Humphrey, Neb., has lately changed over its cleaning house to some extent and put in the Dickey Overblast Cleaner.

The S. Howes Company recently sold through its representative, J. N. Bacon, a large seed cleaner to the Linseed Oil Company of Indianapolis, Ind.

Morton Wallman of Kansas City has purchased 100,000 bushels of wheat that were damaged in the burning of the Stipp Elevator at Carrollton, Mo.

The Aberdeen Mill Company has let the contract for the erection of a 40,000-bushel elevator at Aberdeen, S. D., to be run in connection with its mill.

The Canadian Pacific Railway Company has constructed a new stone foundation under its elevator at Port Arthur, which is leased by Marks, King & Co.

Albert Harrington of Minneapolis, of the Belt Line Elevator, has purchased 100,000 bushels of grain damaged in the recent Daisy Mill elevator fire at Superior.

Laudeman & Henderson's new elevator and warehouse at Lexington, Ky., is completed and in operation. They buy all kinds of grain and hay and seed.

W. B. Wells, grain dealer of Trafalgar, Ind., disappeared from home recently and it is thought that he has absconded. He left many creditors behind him.

The Heidenreich Construction Company has secured the contract for the piling of the new coal elevator of the Lehigh Valley Coal Company at Chicago.

Wm. H. Michael & Son, grain and general commission merchants of Baltimore, Md., assigned recently, with liabilities at \$11,439.74 and assets only nominal.

C. S. Hulbert writes us that the Interstate Grain Company is not going to erect an elevator at Devil's Lake, N. D., reports to the contrary notwithstanding.

The Abercrombie (Minn.) *Herald* says that the elevator men are the busiest fellows in town. In one day recently 10,000 bushels of wheat were marketed at that place.

B. F. Scovill, McKenzie, N. D., has lately changed his elevator from horse power to steam power, and equipped with the Dickey Overblast for cleaning seeds.

Farmers near Richwood, Wis., are organizing a company with the intention of engaging in the grain business. They propose to build an elevator to cost \$6,000.

Arthur Armington is erecting an elevator at Elkhart, Ill., which will have a capacity of 22,000 bushels. It will be finished by November 1, and will cost \$4,000.

Supervisor Myer's grain warehouse at Madera, Cal., has taken in 65,000 sacks of grain this season, of which 35,000 have passed through and the rest are stored.

Swartz & Armstrong's new elevator at Jerome, Iowa, has been completed and is in operation. It has a capacity of 10,000 bushels and is run by a gasoline engine.

The Schisler-Corneli Seed Company has been incorporated at St. Louis, Mo., with a capital stock of \$20,000. H. W. Schisler and A. P. Corneli are the shareholders.

The firm of A. & J. Beetem, dealers in grain and coal at Carlisle, Pa., has been dissolved, Abram Beetem continuing the business and S. H. and F. H. Beetem retiring.

Felger Bros., grain dealers of Jeromeville, Ohio, are prepared for an extensive business in grain, coal and lumber this season, which is already beginning to loom up.

The Valley Falls Grain Company, Valley Falls, Kan., has lately put in one of the A. P. Dickey Manufacturing Company's overblast cleaners for all kinds of grain.

Jonker & Johnson's new elevator at Eldora, Iowa, is completed. The firm was only recently organized and with its 15,000-bushel house is carrying on a good business.

Frank K. Dunn, formerly of the firm of F. G. Logan & Co., commission merchants of Chicago, has retired from that company. The firm name will remain unchanged.

David Zimmerman and Matt. Schmid have formed a partnership and will go into the grain and hay business at New Glarus, Wis., where they will build a warehouse.

A company composed of farmers is selling stock for the building of a farmers' elevator at Rankin, Ill., which will have a capacity of 25,000 bushels and will cost \$10,000.

Davidson & Smith, grain commission dealers of Kansas City, Mo., will erect a 100,000-bushel elevator at Parsons, Kan., at a cost of \$20,000. It will be equipped with the latest improved machinery, in-

cluding wheat cleaning machinery furnished by the S. Howes Co. and corn cleaning machinery furnished by the Barnard & Leas Manufacturing Company.

The Wayne Elevator at Oswego, Ill., which burned several months ago, is being rebuilt by William Cliggett, he having purchased J. N. Wayne's interest in the property.

A Philadelphia sugar refinery has engaged the Reading Grain Elevator at Port Richmond, N. Y., to store sugar. All the storage facilities along the Delaware River are filled.

A. Atkinson & Co., grain exporters of Winnipeg, Man., have dissolved. Mr. Atkinson retires and D. W. Cummings will engage in the grain business on his own behalf.

The Rossville Elevator Company has been incorporated at Rossville, Kan., with a capital stock of \$4,000. The incorporators are: H. H. Miller, Benj. Davis and S. C. McAdams.

The Northern Elevator Company's new house at Winnipeg is completed. This new cleaning and sorting house will be in time for a crop of a somewhat varying quality.

At Everly, Iowa, McWhirter & Morrison have lately equipped with one of the A. P. Dickey Manufacturing Company's overblasts for barley and flax, and say it is just the thing.

The Farmers Elevator Company has been incorporated at Revillo, Colo., with a capital stock of \$1,000. The incorporators are: W. O. Storlie, Thomas Street and others.

B. S. Constant of Bloomington, Ill., shipped two elevator feeders to Baum & White, Linden, Ind., recently. These feeders are claimed to be just what the elevator men want.

Meyer, Spaul & Schlengernan, hay and grain merchants of London, England, have registered a Canadian partnership and have appointed Fred W. Boschen as agent at Montreal.

Parrish & Lindsay of Brandon have erected an elevator at Carroll, Man., of 25,000 bushels' capacity. It is equipped with steam power. They now control six elevators in the country.

There is a plan on foot to erect a large grain elevator near Twenty-ninth and Fourteenth streets, Minneapolis, Minn., but the residents are protesting on the plea of increased fire risk.

The Farmers' Warehouse Company is building an addition to its grain warehouse at Garfield, Wash., as they have found it impossible to store all the grain offered with its present facilities.

The assets of the G. Y. Root Company, grain dealers of Cincinnati, Ohio, who assigned recently, are stated to be \$128,136, and the liabilities \$537,624 which leaves a deficit of \$409,487.

Arrangements had been made to rebuild the Daisy Mill Elevator at Superior, Wis., before the wheat had stopped smoldering. Elevator contractors have to do some quick bidding nowadays.

Edward McCormick of the firm of McCormick & Eustice, grain dealers of Cuba, Mo., has purchased the interests of his partner and will run the business alone, adding baled hay and feed.

The Excelsior Grain Company has been incorporated at St. Louis, Mo., with a capital stock of \$75,000, fully paid in. Among the shareholders are: John H. Evill, Henry E. Hart and Jas. L. Carlisle.

C. Balm, who was contemplating the erection of an elevator at New Richmond, Ind., has bought an interest of Trustee White in the old mill at Linden, which they are remodeling into an elevator.

The case of the Minneapolis and Northern Elevator Company vs. R. T. Kingman of Hillsboro, N. D., has been settled by stipulation for \$5,950. The action was brought on three promissory notes.

The elevator which is being erected at Danville, Ill., for Daniel Gregg, is nearing completion. It will be sheathed with corrugated iron, and will be fully equipped with latest improved machinery.

One day recently, in the midst of the rush of an avalanche of 14-cent oats, the horse power at Duffey & Box's elevator at Clarion, Iowa, gave out and couldn't be persuaded to start up again for two days.

It is reported that capitalists are preparing to erect two elevators at Fargo, N. D., for the purpose of cleaning wheat. It is said that one-half the money is subscribed and the work will probably begin soon.

A transfer elevator is being erected at Sheldon, Ill., which will have a storage capacity of 30,000 bushels and transferring 50 cars of grain in ten hours. It is being constructed by the Seckner Contracting Co.

Grain dealers of Janesville, Wis., say that they never before saw such a small amount of grain coming to market, which is accounted for by the fact that the farmers are holding their stock for better prices.

H. P. Bolles, the representative of the Chandler Grain Company at Fargo, N. D., is reported to be waging war on the elevator companies. He recently bought from farmers certificates of grain stored in

elevators, and when he called for the wheat the elevator agents refused to turn it over and guarantee the weights and grades called for by the certificates.

L. O. Haberstick, Valley City, N. D., has equipped for cleaning flax and millet seed for the farmers of his neighborhood, putting in one of the A. P. Dickey Manufacturing Company's overblasts for that purpose.

James Braginton, James Harper and J. E. Gill have formed a company at Ft. Dodge, Iowa, and will carry on a grain business. They will erect a horse power elevator of 40,000 bushels' capacity at a cost of about \$2,000.

It is said that indications continue to grow that the Baltimore & Ohio Railroad will erect an elevator at Cleveland, Ohio, and attempt to make that city a receiving point for a large quantity of Northwestern wheat.

G. S. Palmer, formerly manager of the C. & C. Mill at Spokane, Wash., has formed a partnership with J. M. Perry, and will engage in the grain business at Tacoma and Spokane under the firm name of Palmer & Perry.

The new 20,000-bushel elevator of the C. & N. W. R. R. at Audubon, Iowa, is completed. It was erected by Seeley, Son & Co., contractors, of Fremont, Neb., and has been leased to Thomas F. Musson & Co. of Audubon.

F. E. Gordon's new elevator to be erected at Stotesbury, Mo., will be equipped with a full line of machinery, including sheller and cleaner and power plant, furnished by the Great Western Manufacturing Company.

A. H. Oberg writes us that he is buying grain at Thurston, Neb., for the Peavey Elevator Company. There is at present only a shovel house there, but they intend to put in a dump and elevator to handle the corn crop.

Wm. Simon & Co. recently requested the Winona & Western Railroad Company to allow them to erect a grain elevator on its right of way at Altura, Minn., and upon being refused have taken the matter before the district court.

I. S. Parrish writes us that the firm of Parrish & Kratz, dealers in grain, etc., at Amboy, Ill., have sold out at that place and have dissolved partnership. Mr. Parrish has leased an elevator and will carry on business at Rock Falls, Ill.

Arch. McBean & Son, grain dealers of Winnipeg, have bought the line of elevators of the Manitoba Elevator Company and will place buyers at the different stations. There are four elevators, at Brandon, Wawanesa, Hilton and Baldur.

Hawley & West, grain dealers of Muir, Mich., have completed their new elevator. It has a capacity of 10,000 bushels, it is built on the latest improved plans and is guaranteed to be fire proof. A 5-horse power gasoline engine supplies the power.

Mrs. E. C. Zimmermann has begun suit against F. G. Logan & Co. of Chicago for the recovery of \$6,147.07, which she alleges was the amount of her own money that her husband speculated with on wheat and stocks and did not bring back.

Edward C. Heald has retired from the grain trade of Baltimore, Md., and J. T. Arthur, formerly with Heald & Co., has taken an interest in the grain firm of John T. Fahey & Co., who will hold the foreign patronage and connections of the retiring firm.

The M., K. & T. Grain Company has been organized at Kansas City, Mo., to engage in the export trade, buying, selling and exporting corn, wheat, flour, etc. The firm is composed of S. L. Brooking and W. S. Campbell, the latter being the manager.

High water in Lake Superior has recently created a good deal of trouble for the elevators at Superior, Wis., and elsewhere. All the elevators at Superior except the "D" and "A" were compelled to shut down for some time. Not much damage was done, however.

Alfred F. Avery, bookkeeper and head clerk for Messmore, Garnett & Co., grain commission merchants of St. Louis, Mo., disappeared recently and a shortage of \$2,000 was found in his accounts. Races and a woman are said to be the cause of his downfall.

Grain men of Chelan Falls, Wash., are considering the project of constructing a steel pipe wheat chute for the purpose of conveying grain to the warehouses in the valley. If this were done the tedious process of carrying wheat down by teams would be done away with.

Wm. G. McCutchen & Co., Winona, Minn., have lately put in one of the largest sized overblasts, manufactured by the A. P. Dickey Manufacturing Company, for flax and timothy, and have also equipped their Lewiston house with warehouse cleaners of the Dickey make.

Work on Coon & Churchill's new elevator at Toledo, Ohio, is progressing rapidly. It is being constructed according to plans by E. Lee Heidenreich, and the work is being superintended by E. N. Pratt, who has been foreman of construction for the Heidenreichs for a number of years. The plant will con-

sist of eight iron tanks, ranging from 30 to 40 feet in diameter and 45 feet high, the combined capacity of which will be 1,000,000 bushels. The plant will be up to date in every particular.

The Consolidated Elevator Company's elevator "D" at Duluth has been made private in order to be able to handle off-grade wheat. It is reported that other elevator companies at the head of the lakes will follow this example, as it is possible to raise the grade of a large quantity of the grain this year.

The grain commission firm of Crohen, Mascord & Co. of New York City has been dissolved by limitation. Mr. Mascord will be connected with the firm of W. H. Story & Co., and will have charge of their barley department. Theodore Crohen will carry on the business of the former partnership.

The Firmenich Glucose Manufacturing Company will establish a large plant at Ottumwa, Iowa, having accepted the offer of a bonus of \$50,000. The plant will be in operation by February 1, and will consume 15,000 bushels of corn per day. The same company has a large plant at Marshalltown, Iowa.

W. S. Sturgeon's new 12,000-bushel elevator at Gillum, Ill., is going up rapidly. It is built after plans made by B. S. Constant, and will be equipped with the Constant Feeders, dumps and cleaning machinery, a Western Sheller and Charter Gasoline Engine. D. G. Eikinberry is superintending the work.

The Michigan Produce Company of Ovid, Mich., writes us that it has just finished its new elevator at that place, which has a capacity of 15,000 bushels. It is equipped with an 8-horse power Charter Gasoline Engine, and a Eureka Separator. The company's specialties are hay, beans, potatoes and wool.

The 200 laborers who were at work shoveling up the wheat from the burned Daisy Mill Elevator at Superior, Wis., recently struck on account of having their wages reduced from 20 to 15 cents per hour. The wages were restored, but the men refused to work and demanded an advance, which was conceded them.

The C., H. & D. R. Elevator at Toledo, Ohio, which burned last winter, has been rebuilt and is now in operation. This is one of the best cleaning houses that has been erected in years in point of equipment, arrangement and construction, and it reflects great credit on the Heidenreichs, who erected it.

James R. Willard, who has been connected with Kennett, Hopkins & Co., grain brokers of Chicago, for many years, has started in business for himself in the same line, the firm name being J. R. Willard & Co. The company has prominent connections, with wires to New York, Philadelphia, Baltimore and Washington.

O. Barnard & Son of Fowler, Ind., are rebuilding their elevator which burned recently. B. S. Constant of Bloomington, Ill., is furnishing the plans. It is claimed that it will be the largest and most complete grain elevator in that section of the country. C. E. Flora, also of Bloomington, is superintending the work.

The stockholders of the United Elevator Company of St. Louis met on October 3 and voted to issue bonds in the sum of \$485,000, which increases the company's indebtedness to \$1,700,000. The company has four elevators in operation, and it is reported that President Anderson's report for September was very satisfactory.

The Newport Grain and Milling Company has been incorporated at Newport, Tenn., with an authorized capital stock of \$100,000, of which \$15,000 is paid in. The incorporators are: Geo. W. Decker, president; A. G. Anderson, secretary; R. M. Johnson, treasurer; and D. W. Anderson. The company will do a general grain business.

The Witte Iron Works Company recently shipped a 25-horse power gasoline engine to Ipswich, Mass., one to J. F. Wellington's new elevator of Kipp, Kan., one to Wakeeney, Kan., one to Bonner Springs, Kan., one to Pleasanton, Kan., one to Monmouth, Ill., one to B. B. Ranson of Kansas City, one to Sedan, Kan., and a host of others.

The Northern Elevator Company of Winnipeg has this season built three new receiving elevators at country points, and has purchased or leased several other elevators and grain warehouses, besides remodeling several warehouses. The company has also a splendid storage and cleaning elevator in course of erection in Winnipeg.

It was reported some time ago that the suit to recover \$6,000 insurance on the life of A. Bailey, formerly a grain dealer of Duluth, had been withdrawn. This report is denied. Mr. Bailey disappeared from Duluth about June 7, 1893, after some losses on the wheat market, and the Bankers' Insurance Company thinks he is in hiding and not dead.

It was announced that a meeting of the Missouri Grain and Commission Company would be held at St. Louis, Mo., on September 14, for the purpose of electing directors and officers. The stock of the company was sold recently to P. Brockman, but proceedings were stopped by an injunction suit filed by J. W. Sharpe, president of the company, charging

Mr. Brockman with trying to wreck the Missouri company, and reciting transactions between it and Mr. Brockman, which reveal a very tangled condition of affairs. Mr. Brockman denies all the charges.

There is a great deal of old corn on hand in the cribs and elevators of McLean and adjoining counties in Illinois, some of it being two and three years old. Much of it has been shipped recently to make room for the enormous new crop. At Barnes, McLean County, there are 500,000 bushels in store; at Birkbeck, De Witt County, 300,000; at Kappa, 75,000; at El Paso, 150,000; at Eureka, 100,000. These towns are fair samples of the entire region.

Business men of Wadena, Minn., have started into the grain buying business and will buck against the elevators, as they claim that they are not paying for wheat what it is worth, and are paying more at Deer Creek and Henning than at that point for the same wheat. M. J. Katzby has been selected as buyer and is paying 3 cents more than the elevators. If they don't get enough of that very soon the old law of supply and demand with freight rates thrown in will have lost its wonted potency.

W. E. Sherer of Minneapolis, Northwestern representative of the S. Howes Company, has received the following recent orders: From the L. C. Porter Milling Company of Winona, Minn., two No. 5 Eureka Horizontal Scourers; Daisy Roller Mill Company of Superior, Wis., two No. 8 horizontal close scourers, two No. 6 warehouse separators, to be used as milling separators, and one No. 8 double receiving separator; for Peterson & Fuller of Amboy, Minn., one No. 1 milling separator and two No. 1 horizontal scourers.

J. R. McElveen, alias Randolph, who is charged with having swindled several grain merchants of Kansas City, has been captured in Waco, Texas. McElveen pretended to be a buyer for the Everett Grain Company of Atlanta, Ga., and by negotiations between local firms and the fictitious Atlanta firm, all passing through his hands, he was able to obtain the signatures of his victims. He is believed to be an old offender and a forger who has been pestering the millers of the Southwest for a number of years. He will be diligently prosecuted.

The Stevens Mill and Elevator Machinery Company of Peoria, Ill., has under construction for the Henderson & Johnston Elevator Company of Pittsburg, Pa., what it claims are the largest set of grain cleaners ever made. These consist of one separator of at least 4,000 bushels' capacity, which has 120 feet of single riddle surface and 16 lineal feet of suction trunk for taking out light refuse. It is an iron-framed machine and has four shakers on it, each containing one oat sieve and one wheat sieve, each of which is 5x6 feet in size. The oat clipper is said to be the largest ever placed in an elevator. Its capacity is 1,500 bushels per hour. A peculiarity of this machine is that it can be used for a separator without clipping the oats, and for all kinds of grain as a general machine clipping oats, or as a general separator for all kinds of grain without using the clipper. Its main frame is iron.

INSPECTING BEFORE ACCEPTING.

According to the agreement existing between the railroads entering Texas, all shipments of Texas oats were delivered to the consignee with the privilege of inspection only upon presentation of the original bill of lading or when the product had been shipped or billed out with the inspection privilege specified. For some reason or another the freight officials of several of the roads have either ignored the agreement or forgotten it, as in a large number of instances the consignee has been permitted to examine the shipments before accepting same, and the result has been that on several occasions the oats were refused and the burden of cost and transportation thrown upon the shipper. The result of this has been to call the lax administration of the freight officials to the attention of the oat shippers, and they now threaten to take the matter into the courts to determine the liability of the railroads.—*Times-Democrat, New Orleans.*

The changes have been so often rung on the "gambling transaction" phase of wheat dealing cases that have reached the courts that anything new can scarcely be expected. But a point of some importance to grain men was recently brought out in a suit in Minneapolis. T. M. McCord & Co., a grain firm, held a promissory note for \$200 given in part payment for wheat trades. Suit was brought in the district court to enforce payment, when the defendant set up the claim that the note was given in payment of debts contracted from option dealing, and that gambling debts could not be collected. The defendant brought a counter claim for \$3,000 alleged to have been lost in the same way. The statutes of Minnesota were forthwith quoted to show that money lost in gambling was recoverable only when lost in games of chance with cards, dice, etc. The defendant in the case died, and both suits were withdrawn without the court deciding on this point.

Fires, Casualties, Etc.

Shirley's broom corn shed at Charleston Ill., burned September 30.

Kunkee & Co.'s elevator at Octavia, Neb., was destroyed by fire September 19.

In a recent prairie fire at Lucca, N. D., Hans Peter-son lost 1,500 bushels of wheat.

Schreiner & Co., dealers in grain and groceries at Kenoma, Mo., sustained a slight damage by fire recently.

A fire on John Pinkerton's farm near Waupaca, Wis., on October 1 destroyed 2,600 bushels of grain and seed.

Ware Bros. & Co., grain dealers of McKinney, Texas, recently sustained a loss by fire of \$2,000. No insurance.

Edw. Richardson, dealer in grain and implements at Farina, Ill., was burned out October 4. Loss \$400; no insurance.

High water in the lake did considerable damage to the C. St. P., M. & O. R. R. elevator at Washburn, Wis., September 12.

C. E. Lockwood's new bean elevator at Williamston, Mich., was destroyed by fire October 3, at a loss of \$3,000. No insurance.

H. W. Jones & Co., grain dealers of Farina, Ill., sustained a loss by fire on October 4 amounting to \$200. There was no insurance.

The 6-year-old son of O. P. B. Jacobson, grain buyer at Fergus Falls, Minn., was smothered to death in the elevator September 20.

C. S. Phelps, grain buyer of Ottawa, Ill., was killed recently while crossing a railroad track, a fast mail train crashing into his buggy.

A. S. Brooks' elevator at Emerado, N. D., burned October 4, with 4,000 bushels of oats. The loss is partially covered by insurance.

Wade & Ford, dealers in grain and lumber at Farina, Ill., were burned out October 4, sustaining a loss of \$6,000. Insurance \$2,000.

The Monarch Elevator at Wood, N. D., which contained 15,000 bushels of wheat, burned October 7, the cause of the fire being unknown.

Dr. Swanson's granary near Grand Harbor, N. D., containing 3,000 bushels of grain, hay, etc., was burned October 9 at a loss of \$3,000.

Allison & Metzger's elevator at Pana, Ill., was burned September 17, together with 60,000 bushels of grain. Loss \$7,500; insurance \$5,000.

John B. Brown's barn near Dalton, Ga., was burned recently together with hay and grain valued at \$2,000. No insurance. The fire was incendiary.

A large barn near Percy, Ill., belonging to Charles Knope, was burned September 24, together with 1,000 bushels of wheat and a quantity of feed. Loss \$3,000.

Hunt & Hewitt of Bathgate, S. D., lost 400 bushels of oats by fire recently. The grain had just been thrashed and stored in a temporary granary on the field.

George Nelson's granary on his farm near Cassel-ton, S. D., was destroyed by fire September 27. Two thousand five hundred bushels of wheat were burned. No insurance.

Witherspoon & Barr's elevator at Princeton, Ind., burned October 9, together with 30,000 bushels of wheat and 600 bushels of clover seed. Loss \$25,000; partially insured.

M. C. Ott's elevator at Wilton, Iowa, caught fire September 26 from heated bearings in the roof. The loss was slight, as the fire was discovered in time to prevent much damage.

George Perchbacher of Ft. Wayne lost his elevator at Tiosa, Ind., by fire September 23. It was leased to Mercer & McNeal of Peru. Loss \$8,000; insurance \$3,000. He will rebuild at once.

T. B. Sheldon & Co.'s elevator at Goodhue, Minn., was destroyed by fire October 1. Loss on the elevator was \$5,500, and \$4,000 on the grain; insurance \$3,500 on building and fully covering the loss on the grain.

The Caffey Elevator at Carrollton, Mo., owned by Stipp & Co., was burned September 10, together with 3,400 bushels of wheat. The insurance amounted to \$17,500. The fire started from sparks from a locomotive.

J. P. Tillotson, a broker on the Chicago Board of Trade, committed suicide by jumping into the lake on October 2. He was 45 years old and had been married only six months. The only known cause for suicide was that Mr. Tillotson had bought a large

quantity of wheat at 70 and 80 cents and was unable to meet the calls upon him for margins.

W. E. Washington's granary near Marietta, Ind. Ter., was destroyed by fire September 30, together with 6,000 bushels of wheat and 30,000 bushels of oats; about 5,000 bushels of oats were saved. No insurance.

The Colorado Milling and Elevator Company's elevator and mill at Ft. Collins, Colo., were destroyed by fire on October 5, at a loss of \$125,000; partially covered by insurance. The origin of the fire is unknown.

Wilson & Mosbarger's new elevator at Rileysburg, Ind., was destroyed by fire recently at a loss of \$1,500; insurance \$1,000. It is thought that incendiarism was the cause of the fire. The elevator will be rebuilt.

The Red Cloud Roller Mill, Elevator and Warehouse at Red Cloud, Neb., was destroyed by fire on the night of September 30, together with 3,000 bushels of wheat. Loss \$40,000; insurance \$20,000 on buildings and machinery.

One end of C. S. Lawbaugh's elevator at Boone, Iowa, was recently found to be giving way beneath its load of wheat. It was braced in time to prevent it from collapsing. Grain men should fight shy of country barn builders.

H. L. Milligan & Co.'s grain warehouse at Greenville, Tenn., collapsed September 14, letting about 14,000 bushels of grain to the ground. The only damage done was to the building, but no one can tell how bad such accidents might be.

The addition to the Amboy Elevator Company's elevator at Amboy, Minn., which was only recently completed, burst September 30, under the weight of 10,000 bushels of grain. It pays to have an elevator built by a responsible firm.

De Wolf & Wilson's elevator at Havelock, Iowa, collapsed September 21, with 22,000 bushels of oats. The grain was badly damaged by rain. The elevator will be rebuilt. Elevators put up by irresponsible barn builders are falling everywhere.

J. H. Gibbs & Son's elevator and grist mill at Edmore, Mich., were destroyed by fire October 5, together with 10,000 bushels of grain. The estimated total loss is \$30,000, insurance \$2,000. The fire is thought to have started from a hot box.

The elevator and cribs at Wright's Station, Ill., which was operated by Sawin & Co. of Mattoon, burned October 5, together with 1,500 bushels of corn, 60 tons of broom corn and a quantity of baled hay and straw. The loss is partially covered by insurance.

The elevator of the York Milling Company of York, Pa., began to settle recently under the weight of 25,000 bushels of grain, and the outside sheet iron covering cracked and loosened from the woodwork so that it will be necessary to re-cover the entire elevator.

S. T. Lupe's elevator at Sedalia, Mo., just escaped burning the other day. Between the elevator and the railroad tracks was a heap of corn cobs which became ignited by a spark from a passing locomotive engine. But it was discovered in time to prevent any damage to the elevator.

Nye & Schneider's elevator at Wisner, Neb., took fire September 28 at the rear of the engine room, the woodwork being too close to the boiler. The fire was only partially extinguished, for it broke out again that night. A watch had been set and it was put out with a loss of only \$500.

The Boone County Milling and Elevator Company lost its large elevator at Columbia, Mo., on the morning of September 22 by a fire said to have been set by an incendiary, it being the third attempt to destroy the property. There were 100,000 bushels of wheat in the elevator, and the loss is estimated at \$75,000.

Lightning struck the elevator of McMichael & Son at Hull, Iowa, September 21, and the fire which ensued spread to the Hunting Elevator, Bender Bros' elevator and a flat warehouse and all of them were destroyed. They were full of grain and the loss was heavy, though insurance was carried by all of them.

Paul Best's granary at Richfield, Wis., collapsed recently under the weight of 2,000 bushels of grain. Three men were caught on the crash and the proprietor was seriously injured. It is always safest to contract with a good firm of competent elevator builders to erect even the smallest house which is designed to hold grain.

Eickenberg & Tate's elevator at Pleasantville, Iowa, was destroyed by fire September 27, together with 40,000 bushels of grain. The cause of the fire is unknown. The house was leased by G. J. Stewart & Co., dealers in grain, lumber and coal at Chariton. The loss on the grain is \$6,000, no insurance; on the elevator \$3,000, insurance \$1,000.

The large elevator belonging to the Daisy Roller Mill Company at Superior, Wis., was destroyed by fire September 23, together with about 75,000 bushels of wheat, valued at about \$60,000. The total loss is about \$100,000, heavily insured. The fire started in the cupola from an explosion of flour dust. The

building was equipped with automatic sprinklers and was considered a good risk by the insurance companies. It will be rebuilt.

Marsh, White & Co.'s elevator at Greenpoint, near Brooklyn, N. Y., was destroyed by fire early on the morning of September 15. The following are the estimated losses: On 150,000 bushels of wheat \$90,000, 180,000 empty bags \$8,000, buildings and machinery \$25,000, a total of \$123,000; total insurance \$47,280. It is thought the cause of the fire was spontaneous combustion.

Smith & McCarthy's elevator "D" and their warehouse at Indianapolis, Ind., were destroyed by fire on the morning of September 19. The buildings were frame and contained 600 bales of hay, 5,000 bushels of shelled corn, 24,000 bushels of oats and a quantity of wheat. The total loss is estimated at \$38,000. The wheat was owned by Landers & Donnelley. The total amount of insurance is \$13,000.

Theodore Simpson, bookkeeper for J. H. Hermisch, grain and hay dealer of Cincinnati, Ohio, died recently from injuries received in the fire which occurred there some time ago. Mr. Simpson saved the life of the stenographer and lingered to look after the books and papers. He was then forced to jump out of the second story window, breaking his leg and receiving internal injuries. He was 66 years old and single.

The elevator at Milwaukee, Wis., owned by the Martin estate and operated by Paine Bros. & Co., was damaged by fire on the night of September 28, destroying considerable wheat and about 12,000 bushels of barley. The loss on the grain is \$30,000, and on the elevator \$8,000; partially covered by a total insurance of \$30,000. Paine Bros. carried on an extensive business purchasing and cleaning and drying damaged grain.

OBITUARY

Ebenezer L. Ferry, dealer in malt and hops at New York City, died September 18, at the age of 75.

William Majors, grain and hay merchant of Golden City, Mo., was found dead in bed at Kenoma on the morning of October 5. He was about 50 years old.

Wallace Prouty of Buffalo, N. Y., manager of the New York Central elevators, died October 1 from injuries received in a runaway accident. He was 58 years old.

S. Vincent Tripp, who built the Tripp Elevator at New York City, died in Poughkeepsie recently at the age of 74. Mr. Tripp had been a member of the Produce Exchange since 1865, and was well known in business circles. He remained in New York City until 1886, when he removed to Poughkeepsie.

Prof. C. V. Riley, one of the foremost entomologists of America and the organizer of the Entomological Department of the United States, died September 14, from injuries received in a fall from his bicycle. Every agriculturist in the country is indebted to Prof. Riley and has benefited by his great works in economic entomology.

Henry Keller, an old member of the grain trade of Chicago, died September 13. Mr. Keller was born in Hensbach, Germany, near Heidelberg, in 1827, and came to this country when 9 years old. He settled in Chicago in 1851, and had been for the last twenty years identified with the grain interests, first as foreman of the Munger-Armour elevator, later with the Armour-Dole Company, and since 1887 as Illinois state grain inspector.

Carlos H. Blackman died at Block Island, R. I., September 13. Twenty days previously he had been accidentally shot and it was thought at first that his great vitality would save his life. Death was due to gradual failure of vital forces. Carlos H. Blackman was born in Jericho City, Vt., in 1843. In 1863 he came to Chicago and became a partner in the Board of Trade firm of Lindsey, Blackman & Co. Five years afterward the firm of Blackman Bros. was formed, which has continued twenty-seven years. He was married to Miss Florence Littlefield of Rockford, Ill., twenty-seven years ago. They had no children. Mr. Blackman was one of the most prominent and active members of the Board of Trade. The directors decided to adjourn the Board at 12 o'clock September 17 and they attended the funeral in a body.

There is now considerable complaint locally about the Minneapolis inspection of flax and rye. Some shippers in Southern Minnesota prefer to ship flax to Chicago at a less price than to Minneapolis, because of the severe grading enforced by the Minnesota rule, holding that they can more than make the difference in price by the smaller dockage under the Illinois inspection. Three sieves are used in inspecting flax in Minnesota, while in Chicago only two are used.—*Minneapolis Journal*.

CROP : CONDITIONS.

[Readers will confer a favor by sending us reports each month of the acreage and condition of growing crops, the amount of grain and hay in farmers' hands and stocks in store, for publication in this department.]

IOWA, BOONE.—Our buckwheat promises about 30 bushels per acre, but that is way above the average.

INDIAN TERRITORY, PAUL'S VALLEY.—This section has an abundant corn crop and shipping will commence soon. W. S. HARRIS.

ONTARIO, LONDON.—Fall wheat round about Delhi is growing rapidly and looks remarkably well. The farmers are digging their potatoes.

INDIANA, RICHMOND, October 6.—Farmers over the county report that the early wheat, which is just now coming up, is being seriously damaged by the Hessian fly.

INDIANA, SEYMOUR, October 3.—The wheat is nearly all in the ground now, and unless there comes a rain before the cold weather sets in, next year's crop will be seriously affected.

IOWA.—Iowa State Agricultural Board makes the crop of the state as follows: Corn, 300,000,000; oats, 207,000,000; wheat, 14,500,000; rye, 2,000,000; barley, 17,000,000; flax, 2,300,000 bushels.

MANITOBA.—The manager of the Lake of the Woods Milling Company estimates the crop of Manitoba and the Northwest Territories at 31,000,000 bushels wheat, 24,000,000 oats, 6,000,000 barley and 1,250,000 flaxseed.

OATS IN IOWA—Iowa numbers among its little incidental crops this year 200,000,000 bushels of oats, averaging 47 bushels to the acre. The state leads in corn, but has no prejudice doing a little sidefarming. —*St. Louis Globe-Democrat.*

KANSAS, HUTCHINSON.—Four out of five of the farmers report the corn not as good as they expected. Where they thought it would make 40 bushels it is making about 35 bushels, but 35 bushels to the acre means lots of corn in this vicinity.

KENTUCKY, HENDERSON, October 6.—The indications are that there will be a reduced acreage of wheat sown this fall. The dry weather will retard sowing very materially, only ground that was broken early and corn ground is all the farmers will be able to sow, unless it rains very soon.

MINNESOTA, ST. VINCENT, October 1.—About 65 per cent. of the thrashing is finished. There were many delays on account of rain and high winds. Wheat is keeping up its average of 33 to 35 bushels per acre. Oats is an immense crop. Barley is mostly discolored. Flax is averaging 20 bushels per acre.

KANSAS, HOPE.—The broom corn crop of this section has been greatly overestimated. There was at least one-third of the crop destroyed by dry weather and frost. Prices seem low because buyers think there is a large crop, when there is not a good half crop. What we have is of good quality.

MANITOBA.—Premier Greenway estimates that Manitoba raised this year 20,000,000 bushels of high grade wheat, 10,000,000 of lower grade but merchantable wheat, and 5,000,000 of feed wheat. There are 20,000,000 bushels of oats above home requirements of 8,000,000, of which a large portion will not be thrashed because of low price and high freights. There are also 6,000,000 bushels of barley.

NEBRASKA.—Commissioner J. E. Utt of Omaha, a statistician of acknowledged authority in Nebraska, has prepared an estimate based upon figures and information from most reliable sources. The grain and live stock products of Nebraska will, this year, exceed those of any former year. A most careful estimate of the grain crop shows the following totals: Corn 200,000,000 bushels; oats 60,000,000 bushels; other grain 20,000,000 bushels.

POTATOES.—A late report from Grantsburg, Wis., states that the potato market in that section is in a deplorable condition. There are in the neighborhood of 500,000 bushels to be marketed here this fall. The price now being paid is 10 cents per bushel for choice shipping stock and only a limited amount will be taken even at that figure. The starch companies grind somewhat over 2,000 bushels per day, which is the heaviest market in the city. Fears are entertained that only one-half the crop can be disposed of.

MICHIGAN—The State Department, in issuing the monthly crop report for October, places the average yield of wheat per acre in the state at 13.30 bushels, and the crop for 1895 at 16,782,637 bushels, or 4,658,778 bushels less than in 1894. There were reported marketed in September 1,095,469 bushels, and for August-September 1,798,468, or 677,606 bushels less than for the same months last year. The oat crop is estimated at 21 bushels per acre; barley, 15.78, and corn 60 bushels of ears. Compared with average crops, potatoes are estimated to yield 82 per cent.;

beans, 78; winter apples, 25, and late peaches 83. Potatoes yield 38 per cent. and corn 21 bushels per acre more than last year, and oats 7 bushels less.

GOVERNMENT CROP REPORT.—The October returns to the statistician of the Department of Agriculture make the general condition of corn 95.5 per cent. against 96.4 for the month of September. In most of the Southern States the condition has fallen since last report.

The average of condition in the large and surplus corn-growing states are as follows: Tennessee, 99; Kentucky, 99; Ohio, 87; Michigan, 89; Indiana, 92; Illinois, 99; Wisconsin, 87; Minnesota, 94; Iowa, 96; Missouri, 111; Kansas, 80; Nebraska, 50.

The returns of yield per acre of wheat indicate a production of 12.5 bushels, being 6-10 of a bushel less than last October's preliminary estimate. The rate of yield of selected states is as follows: New York, 18.1; Pennsylvania, 15; Ohio, 12; Michigan, 12; Indiana, 9; Illinois, 11; Wisconsin, 15; Minnesota, 19; Iowa, 18.8; Missouri, 12; Kansas, 7.5; Nebraska, 12; South Dakota, 10.3; North Dakota, 19; Washington, 14; Oregon, 20; California, 10.

The indicated quality for the country is 85.7. The quality in some of the principal wheat states is: New York, 96; Pennsylvania, 90; Kentucky, 87; Ohio, 85; Michigan, 91; Indiana, 84; Illinois, 76; Wisconsin, 90; Minnesota, 96; Iowa, 95; Missouri, 78; Kansas, 69; Nebraska, 88; South Dakota, 85; North Dakota, 90; Washington, 92; Oregon, 92; California, 87.

The preliminary estimate of the yield of oats is 29.6 bushels per acre: of rye, 14.4; of barley 26.4. The condition of buckwheat is returned at 84.8; of Irish potatoes, 87.4, and tobacco, 80.3.

WATERWAYS

Vessel rates have been booming lately, the rates on grain from Chicago being double what they were last year.

The Executive Canal Committee of New York is carrying on a campaign of education, and is busy distributing pamphlets on the subject of the improvement of the state canals.

The fleet of new steel canal boats running between Cleveland and New York have made their home trip, and the owners are so well satisfied with the results that they are building 24 additional boats.

A resolution adopted at the deep waterways convention urges upon the government the early enlargement of St. Mary's River to at least 500 feet, and the Lime Kiln Crossing and the St. Clair Flats Canal to not less than 600 feet.

It is reported that the new steamship Yale recently took on a cargo at South Chicago of 66,000 bushels of oats and 117,500 bushels of corn, equal to 4,346 net tons. This breaks the record, the previous highest record being 4,255 tons.

The schooner A. W. Comstock, which left Duluth September 22, laden with 57,000 bushels of wheat, founded and sunk in Lake Superior off Stannard Rock. She was valued at \$45,000, and both vessel and wheat were insured.

The new freight steamer Zenith City, which recently made her maiden trip from South Chicago to Duluth, took 138,000 bushels of wheat from Duluth to Buffalo, breaking the record as the largest cargo of grain ever moved from Lake Superior.

And now comes the report that traffic on the new Baltic Canal "has not developed in a way to meet the expectations of its promoters." Only 700 vessels passed through during the month of August. On October 1 a higher scale of tolls was put in force.

An attempt is being made to raise the steamer Cayuga, which lies in 101 feet of water just above the Straits in Lake Michigan. The cargo consists of 15,000 bushels of oats and 18,000 barrels of flour. The oats will be poured into the lake and the flour when released will float to the surface, and will be picked up.

Brlg. Gen. O. M. Poe, Colonel of Engineers of the Northwest District, died at Detroit, Mich., October 2. Gen. Poe was a true friend of canals and a believer in them. He had worked in the interests of waterways for many years, and it was in the performance of his duties at the American Soo Canal that he lost his life. On September 23, while inspecting a break in one of the gates of a lock, he fell and sustained fatal injuries.

The importance of canals as competitors with railroads is apparent from the eagerness of the latter to control them. Of the canal mileage in Great Britain the railroads own about one-third. The total length of all canals in the United Kingdom is 3,812 miles, of which 2,608 are owned by independent companies and 1,204 are either the property of or controlled by the railroads. The paid-up capital of the British canals other than those operated by the railroads was, even

before the completion of Manchester's gigantic enterprise, about \$120,000,000. In France the canals have a total navigable length of 4,085 kilometers. France makes great use of waterways, and the yearly traffic on both canals and rivers increased 80 per cent. from 1879 to 1893.

The Western Deep Water Conference met at Topeka, Kan., October 2, for the purpose of discussing questions concerning deep waterways and freight rates to Gulf ports. A permanent association was effected, and committees from eleven states and territories organized, with the purpose of diverting freight, and mainly grain, to Southern ports. To make this at all practicable, deep water ports on the coast would be necessary, and the Association thinks this already exists.

In 1894 the New York canals carried 3,882,560 tons of freight; in 1872, 6,673,370 tons. In 1872 none of the locks had been lengthened, steam was unknown on them, and the double boat system was unknown. The great difference in the traffic is easily accounted for. While the railroads have never ceased in their extensions and improvements, the only improvement of the Erie Canal since 1862 was the lengthening of some of the locks, and the Erie was permitted to fill up until it is now scarcely six feet deep.

The Erie, Oswego and Champlain canals had up to 1882, when they were freed, cost \$97,628,867, taking into consideration the operating charges. In the same time they had paid into the state treasury, from tolls and all other sources of revenue, \$131,801,797. In other words, they had not only paid for themselves, but had made a profit of \$34,000,000. The people of New York, when called upon in November to vote on the question of expending \$9,000,000 on the improvement of the Erie Canal, will do well to remember what that waterway has earned for the state.

Regarding the effects of the Chicago Drainage Canal on the level of the great lakes, *Engineering News* of New York says that while it will have some effect, the annual changes in lake levels due to natural causes are several times as great as any which the drainage canal can cause. That paper says that the control of the levels of the lakes is entirely within the power of modern engineering, and that the only satisfactory solution of the whole problem would seem to be for the United States and Canada to at once determine the feasibility of controlling the levels of all the great lakes and the waterways which issue from them, and, unless unforeseen obstacles are found, to enter upon the execution of the work.

The International Deep Waterways Association met at Cleveland, Ohio, July 24, 25 and 26. The meetings were largely attended, and many valuable papers were discussed. The views of the Association were set forth in eight resolutions, offering encouragement to all enterprises designed to extend marine commerce through lateral routes tributary to the great lake system, and affirming that the public welfare demands the deepest practicable channels between the several lakes and to the seaboard, so as to enable vessels of the most economical type to pass between the lakes or to foreign waters without the necessity of transshipment, and that there should be a depth of at least 21 feet in all channels, and all terminal structures should be built for a navigable depth of 26 feet or more. The convention also recommended the establishment of an international court to look after canal interests. The real accomplishment of the convention was of an educational value.

The New York Produce Exchange has taken a conservative and, from the point of view of the necessity for the immediate rehabilitation of existing canals, a wise stand, in regard to the movement for the construction of a deep waterway from the great lakes to the Atlantic. Geo. W. Balch, chairman of the Produce Exchange Canal Committee, says: "Minute calculations evolved from entirely practical sources prove conclusively that canal transport can, with the use of approved steamers alone (ignoring entirely the further possibilities of electricity), render transportation at a lower cost than by any other known means; but as looking to the substitution of a ship canal for them, which is strongly urged by some, mainly on the ground of the supposed physical incapacity of the ordinary canal, we are enabled, as the result also of practical investigation, to state that the main canals of this state—the Erie and the Oswego—will, when properly improved, be able to carry forward the entire tonnage of the lakes, which has heretofore in any one season of navigation, been landed at either the ports of Buffalo, Tonawanda or Oswego."

J. N. Dubois, who is accused of defrauding the firm of Goetz & Luening out of \$5,000 some years ago by false bills of lading while he was a commission merchant in Kansas City has been held to the Criminal Court at Milwaukee, in bond of \$15,000.

Two cars of new corn were received at Chicago, October 2, from Northern Illinois, the first of the season. The corn was of good color, but soft, one grading No. 3 and the other No. 4. Last year the first car was received on October 15, from Illinois, and the year previous on October 13, from Iowa, and in 1892 on October 15.

ITEMS FROM ABROAD

France exported during August 148,000 quarters of wheat, flour estimated as wheat, against 178,000 quarters in August, 1894.

Indian wheat exports from April 1 to September 21, estimated in quarters of 480 pounds each, were: In 1895, 1,899,000; in 1894, 996,000; in 1893, 1,692,000.

It is said that English markets are glutted with potatoes, and that such a condition may continue all winter unless frost gets severe enough to destroy large quantities. Probably a great deal will be fed to stock.

The firm of Fox, Clinton & Co., corn merchants of Gloucester, England, failed recently, with liabilities of about \$1,000,000, of which they are expected to pay 50 per cent. The failure is ascribed to speculations in grain futures.

America has heretofore exported clover seed to France, but this year France will have a surplus for export, a good deal of which will probably go to the United Kingdom. On all sides the French clover crop is reported to be good.

Official estimates (in quarters of 304 pounds each) place the oat crop of France in 1895 at 32,900,000; in 1894, 31,700,000; in 1893, 21,600,000. The barley crop (in quarters of 400 pounds each) is estimated at, in 1895, 6,200,000; in 1894, 5,900,000; 1893, 4,200,000.

Imports into Holland during August included 467,000 quarters wheat and 65,000 sacks flour, while the exports of these breadstuffs totaled 284,000 quarters and 14,000 sacks. The net import for the month was 223,000 quarters, compared with 204,000 quarters in August, 1894.

The French Millers' Association estimates the wheat crop of 1895 as 44,500,000 quarters (of 480 pounds each), against the official estimate of 42,200,000 quarters. Last year the Association estimated the crop as 48,500,000 quarters, against the official estimate of 42,800,000 quarters.

The shipments of wheat from Argentine to Europe from January 1 to September 19 were as follows, estimated in quarters of 480 pounds each: In 1895, 4,490,500; in 1894, 6,348,000; in 1893, 3,667,000. Shipments of corn during the same time were: In 1895, 2,269,500; practically none in 1894, only small quantities in 1893, and 943,000 quarters in 1892.

Exports of barley from Black Sea ports from August 1 to September 21, estimated in quarters of 400 pounds each, were as follows: In 1895, 1,682,000; in 1894, 2,498,000; in 1893, 1,913,000. During the same time exports of rye, estimated in quarters of 480 pounds each, were: In 1895, 936,000; in 1894, 1,016,000; in 1893, 404,000; in 1892, 126,000.

Imports of breadstuffs into Germany during August included 556,000 quarters wheat, 441,000 quarters rye (480 pounds to a quarter), and 19,000 sacks wheat flour: of these articles there were exported 6,000 quarters wheat, 10,000 quarters rye and 33,000 sacks flour. The net import of wheat and flour in August was 540,000 quarters, compared with 500,000 quarters in August, 1894.

The supplies of British wheat are running steadily at the rate of 50,000 to 60,000 quarters below the rate of last year, and about 150,000 quarters below that of five years ago. It is said that in the important district of North Lincolnshire and East Yorkshire millers find it impossible to secure sufficient native wheat to meet their requirements, and hence the run upon foreign is very fast and unflagging.

Exports from Russia from August 1 to September 14, compared with those of the same time in 1894, included the following: Wheat 1,606,000, against 1,313,000 quarters of 480 pounds each; rye 634,500, against 632,500 quarters of 480 pounds each; barley 1,224,500, against 1,654,000 quarters of 400 pounds each; oats 1,067,700, against 1,137,000 quarters of 304 pounds each; corn 66,000, against 360,500 quarters of 480 pounds each.

The Hungarian Minister's report of the wheat crop of 1895 shows a diminution in the area under wheat of 625,000 acres since last year. His estimates of the percentage of decrease shows it to have been in the United States 18.08 since 1891; Great Britain 28.28 since 1890; France 5.10 since 1894; Germany .55 since 1890; Russia 7 since 1894; Hungary 3.01 since 1891; Austria 12.84 since 1890; Italy .17 since 1894; Australasia 3.68 since 1891.

Russian exports during the 35 weeks from January 13 to September 14 included the following, compared with shipments during the same time in 1894: Wheat 11,100,000 quarters (of 480 pounds each), against 9,323,000; rye 4,200,000 quarters (of 480 pounds each), against 3,397,000; barley 5,670,000 quarters (of 400 pounds each), against 8,293,000; oats 5,593,000 quar-

ters (of 304 pounds each), against 8,184,000; corn 1,050,000 quarters (of 480 pounds each), against 2,425,000.

PERSONAL

C. L. Ryan is buying grain at Michigan, N. D., for Gagan & Co.

W. D. Leddy is buying wheat at De Pere, Wis., for the A. G. Wells Company.

J. A. Prentice is buying wheat for the Orondo Shipping Company at Troy, Wash.

Sol. Becker of La Crosse, Wis., has taken charge of Cargill Bros' new elevator at Marshfield.

A. Simon has taken charge of the Lamberton Elevator Company's elevator at Altura, Minn.

O. F. Dickson is buying wheat at Chelan Falls, Wash., for the Orondo Shipping Company.

G. J. Johnson, formerly of Marshalltown, Iowa, has removed to Eldora, where he has gone into the grain business.

J. R. Reeve of Hampton, Iowa, has engaged in the grain buying business at Gifford. He will reside in Hampton.

Edward McFarlin of Winona, Minn., has accepted a position with the Chicago O'Neill Grain Company of Chicago.

Prescott Putnam is representing the John P. Douseman Milling Company at De Pere, Wis., where he is buying wheat.

P. C. Hanson, formerly in the milling business at Volga, S. D., has removed to Elkton, S. D., where he is buying grain.

Alexander Baillie, manager at Tacoma, Wash., for Balfour, Guthrie & Co. of San Francisco, has returned home from a European trip.

H. J. Dager, formerly of Norwich, Ont., has removed to Auburn, N. D., where he has accepted a position with the Brooks Elevator Company.

J. F. Meyer of Eureka and Miss Winnie Perry of Aberdeen, S. D., were recently married. Mr. Meyer represents the grain firm of McCaull, Webster & Co. at Eureka.

W. A. Williams is managing the business of A. Waller & Co., grain dealers of Henderson, Ky., and as he averages a daily shipment of twelve carloads it is evident that he manages it well.

L. D. Snow of Kankakee, Ill., has been appointed state grain inspector for Kankakee County upon the recommendation of the grain dealers, who claimed that they were not being treated right in the matter of shipments.

Thos. E. Hartley, who was recently offered the position of traveling agent for the Calumet Grain and Elevator Company, has concluded not to accept and will remain with the firm of Hartley Bros., grain dealers of Goodland, Ind.

A. I. Valentine, manager of Armour's elevators, has been traveling through the Northwest in a private car. At one point on his route he was embarrassed by being serenaded by the rural population, who were under the impression that they were greeting Mr. Armour.

M. T. Russell, secretary of the Iowa Grain Dealers' Association, has been in the grain business in Iowa for over twenty-five years, and is one of the oldest dealers continually in the business in that state. For the past fifteen years he has been in the track and brokerage business at Des Moines.

Manitoba farmers say they will feed their wheat to hogs rather than sell it for less than 50 cents, for which price they are holding on to their stocks.

"Carrying charges," says a public elevator man, "are seldom considered in their real light by speculators. Few of them know how they originated. It was years ago, when railroads were few, and the bulk of the grain went East by lake. Grain buyers in those days would take the grain and carry it during the winter until navigation opened, and paid storage and interest. The cost of carrying was heavy, and finally they discovered that it was cheaper to buy the futures instead of the actual property, and they were willing to pay a good premium over the cash price for them. Even then they found them cheaper than carrying the actual stuff. Of late years there has been no necessity for such carrying charges, but the speculators have continued to pay them. They are a handicap to the speculator, but so long as they are foolish enough to pay them they will be taken by the elevator men."

THE EXCHANGES

Duluth Board of Trade memberships recently sold at \$110.

A recent sale of a membership of the Chicago Board of Trade was at \$825 net to the buyer.

Memberships of the Minneapolis Chamber of Commerce were selling at \$240 just before the fire.

The forfeited certificate of membership in the Boston Chamber of Commerce formerly held by ex-treasurer F. N. Cheney was recently sold at auction for \$205.

Col. George E. Welles, formerly secretary of the Duluth Board of Trade, has been elected secretary of the Toledo Chamber of Commerce to succeed Judge Cochran.

Grain men of the Baltimore Corn and Flour Exchange want No. 1 Northern spring wheat made deliverable on contracts at that market, which some say will greatly increase business.

The grain men of the Philadelphia Commercial Exchange recently voted on the question of continuing the daily call board. It was decided almost unanimously to permit it to remain.

The annual meeting of the Chicago Board of Trade Mutual Benefit Association was held September 27 and the following elected as Executive Board: J. W. Fernald, Gilbert Montague, George E. Gooch, Z. P. Brosseau and Peter H. Eschenburg.

We have received the forty-first annual report of the Philadelphia Commercial Exchange, compiled by Secretary C. Ross Smith, for the year 1895. It is a volume of almost 300 pages and is replete with valuable statistical matter, reports of committees, etc.

An amendment to the rules of the Milwaukee Chamber of Commerce was recently proposed which provided for a new grade of wheat to be known as No. 2 Northern, which was intended to conform to the rules of the Minneapolis Board. The measure was defeated by a vote of 24 to 16.

The directors of the St. Louis Merchants' Exchange will soon settle the fate of the rule, so obnoxious to some, which permits the delivery of Western hard wheat on contracts calling for No. 2 Red Winter. A petition to repeal the rule has been circulated, and a counter petition requests the Board to take no action.

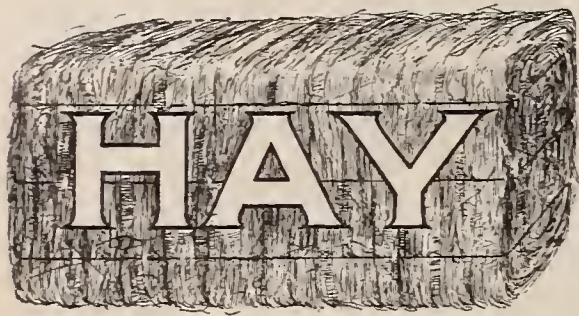
The Kansas City Board of Trade distinguished itself in the Karnival Krewe parade on October 2, and received an award for having the best original idea in the parade. The Board voted \$500 for the grain men's division, which consisted of seven large floats, Korn Cavalry band and a Karnival Korn Kavalkade. There was no session of the Board on October 2.

The Secretary of the Chicago Board of Trade has answered over a thousand letters making inquiries regarding parties who claim to be doing a legitimate business in grain and provisions on the Board of Trade, but who are not members of that organization. Three or four of these concerns have closed up lately, and their customers failed to secure their money.

The Duluth Board of Trade has followed the action of the Chicago Board in cautioning outsiders against dealing with firms which have no connection with the Board. Secretary Frank E. Wyman has given notice that no one can obtain regular free storage of grain, and that investigation should be made when firms offer free storage for 20 to 60 days as an inducement to secure consignments from the country.

At a recent meeting of the Winnipeg Grain Exchange a resolution was adopted declaring it to be advisable to have official weighmen placed at Winnipeg and Emerson in connection with the inspection department, so that any person desiring a government certificate of the weight of a carload of grain going into or out of an elevator at these points may be furnished with the same, the charge to be 25 cents per car.

The Minneapolis Chamber of Commerce Building sustained considerable damage by fire on the morning of September 26, which started near the roof. It is supposed to have caught from electric light wires. The loss is estimated at \$60,000, and the insurance amounts to \$102,500. The building was occupied by grain and commission men and elevator and milling companies, all of whom sustained some loss, most of the offices in the upper stories being entirely destroyed. The Minneapolis Chamber of Commerce Building was erected in 1884 at a cost of \$180,000, and as it has long been too small for the business transacted it may be enlarged and remodeled. The Chamber secured temporary quarters in the Flour Exchange Building, where business was immediately resumed.



Charles McKay of Lucca, N. D., lost 40 tons of hay and 20 tons of millet by fire recently.

If the receipts of hay at Chicago are any criterion of the crop yield it has probably been underestimated.

You can get the *Hay Trade Journal*, weekly, and the *AMERICAN ELEVATOR AND GRAIN TRADE*, monthly, for \$2 a year.

A large hay warehouse at Livermore, Cal., owned by Anspacher Bros., was destroyed by fire September 26, together with 3,500 tons of hay at a loss of \$35,000.

Remember that buyers generally want to see the hay, and it is not sold as readily as graded grain in the elevators, on which there is always a bid. Bale accordingly.

The Erie is in the hands of a receiver and the midget cars will help to keep it there. Large modern cars should be provided for the accommodation of the grain as well as the hay trade.

The shipper of hay has the whole country for a market, and he should be on the lookout for the best and most profitable point in that market. But he should not allow himself to be bamboozled by dazzling offers or inducements by so-called commission merchants.

Some enterprising business men of Albany, Ga., have made a large shipment of hay to Atlanta. It consisted of 24 cars loaded with about 4,000 bales of hay and one carload of German millet, the whole valued at \$3,000. The train was gayly decorated for its trip of over 200 miles.

Larger cars should be provided for hay and straw or else the minimum weight for carload rates reduced to an amount that can be placed in a car. If carriers had any sense of fairness or reason they would make the reduction to conform with the capacity of the cars without any solicitation on the part of the shippers.

Baling hay goes a long way toward making it a profitable crop to ship, and baling it properly will go the rest of the way. The shipper should remember, for instance, that his hay is sold alongside of good bales of well-sorted hay, and that it is easier for him to sort his hay than it is for the receiver. This is all the "trick" there is about shipping hay.

A matter of great importance to shipper and receiver is the standing and responsibility of each. The shipper should know that he is sending his hay to a straightforward and responsible house; the receiver likewise would like to feel when paying shipper's drafts that it is all right, and in case the goods did not cover the amount advanced, that an overdraft would be promptly refunded.

The Transportation Committee of the National Hay Association as recently appointed by President Blakeslee is composed of the following gentlemen: Geo. W. C. Johnston, Pittsburg, Chairman; H. Lee Early, Cincinnati; Ralph L. Galt, Washington; Charles H. Simpson, Richmond; D. A. Danielson, Hamlet, Ind.; J. N. Wooliscroft, Cincinnati; Percy R. Hynson, Baltimore; Wm. M. Tillotson, Adrian, Mich.; John Mullally, St. Louis.

Kansas City disputes with New York for first place as a hay market. The receipts of hay at Kansas City often amount to more than the receipts of wheat, and of receipts of corn and oats together. During the past year hay was one of the main sources of revenue of Kansas, for with a small production of all grains there was a good crop of prairie hay. This is what has helped to make Kansas City a great market for hay presses. There are four large manufacturers in the city, who turn out thousands of presses every year.

In speaking of the first annual meeting of the National Hay Association the *Hay Trade Journal*, to which we are indebted for our facts regarding the meeting, says: "It was the consensus of opinion of every delegate in attendance that he had been well repaid for the time and money spent in being there, and that in coming in contact with those who were so closely connected in handling this vast and valuable product, they had learned many things of value, which would stand them well in hand in the future. It was also unanimously conceded that during the coming year a vast amount of good to all concerned

would be accomplished, and that out of the acorn that was sown last January there had already sprung up a strong and sturdy oak branching out in all directions for the placing of the hay trade on a safer and firmer foundation."

An Eastern paper gives its readers some advice which hay men ought to profit by. Commenting on the fact that Eastern states will have to make large importations from the West it says: The facility with which hay may now be baled and sent long distances very cheaply has reduced the quality of baled hay very much. Much of the Western hay is of poor quality, and if feed has to be bought it would be well to buy grain, which is sure to be cheap, and let the hay alone. With plenty of grain which can be ground and mixed with cut hay or straw there is cheaper nutrition than can be found in hay, especially if it has to be purchased.

ANNUAL MEETING OF THE NATIONAL HAY ASSOCIATION.

The first annual meeting of the National Hay Association was called to order at Cincinnati, Ohio, September 24, by President J. N. Wooliscroft of that city.

An address of welcome by the mayor of the city was responded to by Vice-President B. Mahler of Cleveland, and President Freiberg of the Cincinnati Chamber of Commerce welcomed the delegates and invited them to make the Chamber their headquarters while in the city.

President Wooliscroft appointed the following committee on credentials: H. E. Kinney, Indianapolis; H. M. Strauss, Cleveland; E. P. Light, Chicago; C. R. Tomlinson, Richmond, and W. M. McCaffery, Pittsburgh.

The President then read his first annual report as follows:

"Gentlemen of the National Hay Association:

"In presenting you the first annual report, as your President, I can but congratulate you on the successful inauguration of what has proved to be a grand success, to wit, a National Hay Association, the inauguration of which has filled a long-felt want, giving and guaranteeing to the buyer a uniform inspection, thereby protecting him from indifferent, careless or dishonest shippers, giving a guarantee to the shipper to such points as he may send his hay or straw with the assured fact that his goods will be witnessed to and inspected by a competent inspector working under the rules of commercial bodies in the following centers, viz: Pittsburg, Chicago, St. Louis, Cincinnati, Kansas City, Cleveland, Philadelphia, Baltimore, Buffalo and Washington.

"I regret I cannot report the adoption of the Cleveland classification by New York, but, notwithstanding the most earnest efforts on the part of myself as well as others of your directors, we could not get an adoption, nor could we get the courtesy of an answer to our appeals. That most excellent gentleman, Mr. Favor of Boston, has labored diligently with the trade of that city, but without success. Time only can develop whether they will unite with us, but my earnest hope is that this Association will not only become national in name, but in very fact, wherein every city, whether East, West, North or South, will see that her interests will be more greatly subserved and enhanced by a hearty cooperation with those of her fellows who, in the same line of business, are endeavoring to bring order out of chaos.

"The only point in which I have been called upon to decide during the past year is one presented by Mr. Blakeslee of Chicago, who asks the definition of No. 2 Timothy, stating that the rules do not require over one-third mixed with other grasses, and asking if it did not permit putting in one-third prairie or slough hay, providing it was sound and sweet. I was compelled to decide that No. 2 Timothy admitted of these grasses, providing they were sound and sweet.

"So, taking it as a whole in connection with our initial work, it has proved that we have done our work well and have promulgated a classification which is commendatory. Differences are bound to arise. Different sections may have different conceptions owing to their peculiar environments, but all such can be safely and satisfactorily adjusted; and, standing as we are upon the threshold of a great future, my only hope is that what we have so successfully inaugurated may be but the harbinger of greater and better things to come."

The Committee on Transportation reported that "Many grievances have been brought to our notice relative to rates, terminal facilities, car service charges, and as to what weight shall constitute a minimum carload, as some railroads recognize 15,000 or 16,000, others not less than 20,000 pounds. If the railroads would base their minimum charges upon capacity, according to the size of their cars, the delays in waiting for cars suitable for the shipment of hay would be largely overcome.

"We find that our Association, not being an incorporated body, cannot bring any action in a legal sense and maintain a position, and would therefore recommend that the incoming Executive Board be authorized to have our Association duly incorporated.

"We further regret to inform you that the Association failed to provide any means whereby a contest may be entered upon, and to the end that the aims of our organization may be attained, that the dues for the ensuing year be placed at \$3 per member. B. Mahler,

chairman; M. M. Freeman, Percy R. Hynson, Frank J. Halliday, John E. Hall, John A. Brubaker."

This report, also the report of the Secretary and Treasurer, which showed an expenditure of \$265.90 and a balance of \$37.45, was adopted.

After an intermission for the enrollment of members the convention adjourned to 2:30.

The afternoon session was devoted to a recital of experiences with the new grades and the praising of the work of the Association.

Wednesday morning the proposed Constitution and By-Laws were taken up, read and adopted with a few amendments. A nominating committee was provided for and an effort was made to provide for a grievance committee. In support of the grievance committee Mr. Campbell said: "In the first place I tried to get this convention to have a committee appointed in cases of this kind. I came from the city of Peoria, a town in which there are half a dozen good hay men, and we have also a firm there that is operated under two names; I guess I have evidence here from Kansas City that I am speaking the truth. They will send out market reports quoting a dollar more than the stuff is worth: when it arrives they will protest the drafts, throw the cars open, claim the hay is poor and rob everybody who has done business with them, and I guess they have robbed one man from Indiana who is in the room. The reason I wanted a grievance committee was so that I could bring the facts before them, and that care could be taken in doing business with that class of people, so that it could be known with whom they were doing business."

The matter was discussed at length, and finally a resolution was presented by Mr. Blakeslee to the effect that "when anyone is satisfied that dishonest work is being done in the hay business, he shall be requested to report the same to the president of the Association, and, if he thinks the claim is worthy of attention, he shall have authority to appoint a committee of three to investigate the claim. Said committee shall be chosen from reliable members. They shall have the evidence submitted in writing, give the party an opportunity to answer, and then decide whether it is uncommercial conduct, and report the decision to the President, and in case they decide it is uncommercial conduct, and the President so approves, he shall notify the Secretary, and the Secretary shall notify the trade generally."

E. L. Rogers of Philadelphia moved to amend by providing that when the matter was reported back to the President he should refer it to the Board of Directors. The amendment was accepted and the resolution adopted.

Mr. Rogers then presented the following resolution, which was adopted:

Resolved, That the National Hay Association endorse the action of the Railroad Presidents' Association in their efforts to maintain uniform rates, believing this will result in more uniform good to shippers and receivers in general.

Several amendments were offered to the rule governing the grading of No. 2 Timothy, and finally it was amended to read:

No. 2 Timothy shall include timothy not good enough for No. 1, not over one-third mixed with other tame grasses, fair color, sound and well baled.

Another change was offered by Mr. Morgan of Pittsburg and adopted, so hereafter No Grade Hay shall include all hay badly cured, musty, stained, thrashed or in any way unsound.

A. Clutter of Lima, Ohio, introduced the following resolution:

Resolved, That our Committee on Transportation be authorized to prepare a circular to be sent to all railroad companies, that in the building of new equipments they build a portion of them in cars of large bulk capacity to accommodate the hay and straw trade; that is, to build them similar to those built for the furniture trade.

The Committee on Nominations nominated Geo. S. Blakeslee of Chicago for president and he was elected, together with the following vice-presidents: W. W. Granger, Cincinnati, first vice-president; John A. Brubaker, Kansas City, second vice-president; George W. Voris, Stewardson, Ill., third vice-president; Mr. J. D. Carscallen, Jersey City, fourth vice-president; D. A. Baker, Fayette, Ohio, fifth vice-president; W. B. Harrison, St. Louis, sixth vice-president.

Mr. Blakeslee thanked the Association for the honor conferred, and was followed by ex-President J. N. Wooliscroft, who said: "I wish to tender you my heartfelt thanks for what you have done for me in the past year. I only bespeak at your hands the same kindness toward Mr. Blakeslee you have manifested toward me. I am quite sure with Mr. Blakeslee at your head, in the very incipency of this National Hay Association, the Association will continue to grow and advance. In the Executive Committee and on the Executive Board I have always found that his advice and opinion were of that character which denoted his familiarity with all the workings of this great product which we are endeavoring to handle successfully for the benefit of the receiver and for the benefit of the shipper. I thank you again, gentlemen, for all your courtesies. I thank you for that sweet sentiment that has animated the hearts of many toward me; but this, gentlemen, is not a case for sentiment; it is a case for business, and I think the mantle of president has fallen on worthy shoulders that will carry to a successful conclusion the purpose for which

this organization was formed. Gentlemen, I thank you."

After thanking the retiring president, the press and the Chamber of Commerce, the Association adjourned.

REVIEW OF CHICAGO HAY MARKET.

The prices for hay ruling in the Chicago market during the last five weeks, according to the *Trade Bulletin*, were as follows:

For the week ending September 14 the receipts were 5,610 tons, against 3,861 tons the previous week; shipments for the week were 1,064 tons, against 1,008 tons for the previous week. The offerings of timothy hay were only moderate and the local demand was quite good; inquiry for shipment fair. Prices ruled firm and without material change. Iowa Upland Prairie met with a good demand and the arrivals were rather small. A steady and firm feeling prevailed. The receipts of Kansas or Indian Territory hay were large and the market was very dull. The quality of the arrivals was poor, the bulk being coarse, off-color and heating. It is almost impossible to sell this class of stock, even at very low prices.

For the week ending September 27 receipts were 6,257 tons; shipments 1,028 tons. The arrivals of strictly choice timothy hay were small. A good inquiry existed and the market ruled firm, with a slight advance in prices. Low and medium grades were in liberal supply, and the demand was light. An easier feeling prevailed and prices declined about 50 cents per ton. Upland Prairie was steady early in the week, with only moderate offerings and a fair demand. Later the receipts became heavier, with no corresponding improvement in the demand. The market ruled dull at the close, though prices showed no material change. Sales of choice timothy ranged at \$12.50@13.50; No. 1, \$11.75@13.00; No. 2, \$10.50@11.50; mixed, \$11.00@11.50; not graded, \$9.50@11.50; threshed, \$7.00; Illinois Upland Prairie, \$7.00@8.00; Indiana, \$7.00@9.00; outside for fancy; Kansas, \$5.00 for heating, and \$6.00@11.00 for poor to fancy; Indian Territory, \$8.50; Iowa, \$6.00 for poor, and \$3.00@11.00 for fair to fancy; No. 1 Prairie, \$6; No. 2, \$5.00; packing hay, \$5.00. Oat straw sold at \$4.50, and rye at \$6.00@7.25.

For the week ending September 28 receipts were 6,298 tons, shipments 911 tons. For strictly choice timothy there was a good demand throughout the week. The offerings were light and a firm feeling prevailed. Low grades and damaged hay was very dull. Arrivals large, and it was almost impossible to effect sales. Iowa Upland Prairie hay was in large supply and the demand was only moderate. Prices ruled weak, but not particularly lower. The market for Kansas hay was steadier. The receipts were smaller and the demand improved somewhat. Prices unchanged. Sales of choice timothy ranged at \$12.50@13.50; No. 1 \$11.50@12.50; No. 2 \$11.00@11.50; mixed \$8.00@9.50; not graded \$8.00@12.00; Indiana upland prairie \$7.00; Kansas \$5.00 for damaged and \$8.00@10.00 for good to fancy; Dakota \$8.50@9.00; Indian Territory \$8.50; Iowa \$6.50@7.00 for poor and weedy, and \$8.00@11 for fair to fancy; packing hay \$5.25. Wheat straw sold at \$4.00, and rye at \$5.00@6.00.

For the week ending October 5 receipts were 6,170 tons, shipments 866 tons. No material change to note during the past week. The arrivals were liberal and a large portion consisted of poor and medium grades. Very little demand for this class of stock and the market ruled very dull. Prices irregular, depending entirely on quality and condition. Strictly choice timothy and upland prairie met with a good inquiry and the offerings were rather small. Local dealers want only choice hay. Prices steady and unchanged. Sales of choice timothy ranged at \$12.50@13.50; No. 1 \$11.50@12.50; No. 2 \$10.50@11.50; mixed \$10.00; not graded \$10.00@12.25; Illinois upland prairie \$7.50@8.50; Indiana \$9.00 for choice; Kansas \$8.00@10.50 for good to fancy; Nebraska \$10.00; Dakota \$9.00; Iowa \$7.00@11.00 for poor to fancy; wheat straw sold at \$4.00 and rye straw at \$5.00@6.00.

For the week ending October 12 receipts were 8,399 tons, shipments 1,196 tons. A dull and depressed market was experienced throughout the week. Arrivals were very heavy and quality rather poor, the bulk being coarse and off color. For strictly choice grades there was a moderate demand, but the poorer qualities were very slow sale. Prices ruled steady for the best lots and 25@50 cents lower for the off grades. Sales of choice timothy ranged at \$12.50@13.50; No. 1 \$11.50@13.00; No. 2 \$10.50@11.50; mixed \$10.00@11.00; not graded \$9.00@11.50; Indiana upland prairie \$9.00 for choice; Oklahoma \$9.00; Kansas \$7.50@11.00 for fair to fancy; Nebraska \$11.00; Iowa \$5.00 for damaged, and \$7.00@11.00 for poor to fancy. Oat straw sold at \$4.50, and rye straw at \$5.00@5.50.

Kansas City received last year 25,867,317 bushels of wheat, an increase over the previous year of 10,000,000 bushels. Kansas City is the largest winter wheat market in the world. The total elevator capacity is 5,120,000 bushels of grain, with a daily receiving and discharging capacity of 1,260,000 bushels. There is shown an increase in the storage capacity of 300 per cent. in five years, and it has doubled its receiving and discharging capacity. The combined Kansas Cities Inspected last year 101,000 cars of wheat.

Latest Decisions.

Attachment—Cars in Transit.

Cars in transit between states may be attached, according to the decision of the Supreme Court of Missouri in the recent case of the Southern Grain Company vs. Hatch et al.

Must Still Perform Contracts.

As a general rule, where a partnership has entered into a contract, and one of the partners dies after it has been partially performed, the Supreme Court of Florida says (Jacksonville etc. Co. vs. Warriner, Fla., March, '95, 16 So. 898), his death does not absolve either party from performance, in the absence of an express stipulation to that effect; and the existence of the partnership, with its active functions to be exercised by the surviving partner, is continued until the contract has been fully performed.

Consultation a Duty.

In every important exigency in partnership affairs, where one partner is about to act, he should consult the other, at least if there are no circumstances which excuse him from so doing. This is what the Supreme Court of Minnesota says in a case where it holds (Yorks vs. Tozer, Minn., Nov., '94, 6 N. W. 846) that a partner, who by gross negligence on his part, in not consulting with his partner, incurred unnecessary expense, could not, on an accounting between them, charge the partner who was not consulted with half or any part of such expense.

Liability of Lake Carriers.

In November, 1893, a cargo of corn was shipped on a schooner at Chicago, to be carried to Buffalo, the bill of lading providing that the charge for freight should include free storage in the vessel at Buffalo until April 1, 1894. On arrival at Buffalo, the cargo was inspected and found in good order. Thereafter the vessel remained moored at a wharf, in charge of the captain. During the winter, in consequence of an unusually low tide, the vessel grounded, and was thereby strained and caused to leak, whereby the cargo was damaged. Judge Seaman, United States Judge for the District of Wisconsin, in an opinion handed down April 17 decided that the liability of the owner of the vessel as carrier ceased on her arrival at Buffalo, and thereafter his liability was that of a warehouseman only.

Owner's Right; Carrier's Liability.

The rightful owner of personal property in the possession of a common carrier may enforce his right thereto, although a stranger to the contract of shipment. This is the decision of the Supreme Court of Nebraska in the case (Shellenberg vs. Fremont E. & M. V. R. Co., 63 N. W. Rep. 859) where it says that on the question of the duty of a common carrier at its peril to determine between the shipper of goods and a third party claiming title to them, the authorities are less numerous than the importance of the subject would seem to suggest, although the pronounced weight of such as there are sustains the proposition, which it also indorses, that a refusal to surrender to the rightful owner amounts to an appropriation, for which the latter may recover, if entitled to possession at the time of his demand.

End of Railway Liability.

The decisions of the courts of last resort in the various states are not altogether harmonious as to when a railway company's liability as a common carrier of goods terminates. The Supreme Court of Kansas holds, in a decision handed down in July, 1895, that such liability extends not merely to the termination of the actual transit of the goods to the place of destination, but also until the consignee has a reasonable time thereafter to inspect them, and remove them in the usual hours of business, and in the ordinary course of business.

This is not new doctrine in that state, but it is of importance as being sustained, according to the declaration of the court, by the best-considered recent cases of other states and the United States.

Under this rule, a railway company cannot make even constructive delivery, except at a time when the consignee might reasonably be required to receive the goods, and that can only be during business hours of a business day, where there is no custom or agreement to receive at any other time.

In this case, Missouri Pac. R. Co. v. Wichita Wholesale Grocery Co., 40 Pac. Rep. 899, the railway company insisted that when it placed certain cars of sugar at the rear of the consignee's warehouse, at the exact place where the consignee was accustomed to receive and unload its freight, it had performed its whole duty, and that from the time it uncoupled its engine from the cars the property was in the possession of the consignee, and at its risk. It was shown that the latter was accustomed to break the seals of the cars so placed, and remove the freight without the

presence of, or special permission from, any employee of the railway company. But the cars in this instance were so placed on Sunday, and were consumed by fire before business hours on Monday morning. For the reasons above given, the court holds that there was here no delivery and that the property was still in the custody of the railway company, as carrier, when burned.—*Business Law*.

Bills of Lading; Carrier not Liable.

In Minneapolis, September 28, Judge Russell sustained the demurrer interposed by the Burlington, Cedar Rapids & Northern Railway to the complaint brought by John Ratzer, assignee of a bill of lading, to recover the value of three carloads of oats. The oats were consigned by the Morrison Grain and Elevator Company from Britt, Iowa, to itself, the destination named in the receipt being New York City. Two days after the shipment, which was made last January, the consignor ordered the cars delivered to itself at Morrison, Iowa, and received them there. Two days later than that, however, the consignor assigned his receipts for the cars to the plaintiff, a commission merchant in New York City, and drew against him for the amount represented. The drafts were honored and paid by the plaintiff, but the oats never reached Ratzer, who accordingly brought suit to recover the amount of the road for failure to deliver the same.

Judge Russell held that while the plaintiff had undoubtedly, as shown by the evidence, been duped, still the railroad had acted in strict compliance with the orders of the consignor, who was also the consignee, and that the plaintiff could not recover from the company.

WHEAT CONSUMPTION PER HEAD.

The average annual consumption of wheat per capita in the United States has been officially estimated at 4.67 bushels, and this quantity was used for several years in the compilation of statements by the Agricultural Bureau at Washington. The disagreement in recent years between the quantities of wheat on hand and what they would have been if this estimate and those for crop production were correct has invited a re-examination of the data. This has been undertaken by Mr. B. H. Snow, who reviewed all the official figures available for the determination of the quantity consumed. He has tabulated the returns of actual food consumption in 1,694 families, representing 8,226 individuals of stated ages, and working at various employments in 24 states, and the results are compared with the census statistics of flour production and export, taking 43½ pounds of flour as the average product from a bushel of wheat. He definitely adopts 4.77 bushels of wheat as the average annual consumption per capita, which for a population of 70 million persons would give an aggregate annual food consumption of 334 million bushels of wheat.

To this must be added the volume of exports in wheat and flour and the quantity used for seed, which varies with the breadth sown. If an allowance of 50 millions be made for the latter and 16 millions for consumption as paste, etc., these, with the food consumption, will make 400 million bushels to be subtracted from the total crop yield, the remainder being the export surplus, without taking into account any wheat that is used for the feeding of live stock and poultry, of which a great amount is said to have been done from the crop of 1894. But 400 millions divided by 70 millions gives a unit consumption of about 5.7 bushels for all domestic purposes, and this result is nearly half a bushel per capita more than the 5.211 bushels which was stated by the *Tribune* a few years ago to have been deduced from a close comparison of reported crop yield, exports and population through a series of 22 years.

This difference is not necessarily the result of important error in either set of figures. The long period for which an average was taken was one during which the per capita consumption of wheat must have largely increased among the poorer people of the Southern states, who hardly knew what wheat bread was till after the close of the war of the rebellion. Probably there has been some increase in the North, but this may not have been more than sufficient to offset the greater yield of flour obtainable from wheat by modern milling as compared with the old-fashioned grinding process. And undoubtedly the per capita consumption now varies from year to year. The excess of milling product over exports of flour in 1880 left a per capita of 5.53 bushels of wheat for home consumption, while the corresponding result for 1890 was only 5.28 bushels per capita. These figures do not take into account the difference in flour stocks at the two ends of the year, but there is no evidence of any marked accumulation during either of the two years to greatly change the per capita figures.

The one important deduction to be made from the comparison is that whatever error may have been made in estimating quantities left over at the end of a few recent crop years must be ascribed to looseness of the data from which were compiled the estimates of crop yield. It seems probable that for each of the last three or four crops there was an average underestimate of 40 to 50 million bushels, while there was a much smaller underestimate of domestic consumption.—*Chicago Tribune*.

PRESS COMMENT.

TOO MUCH WATER.

Public opinion is rapidly crystallizing in favor of an international agreement to prevent a portion of the flow of water over the falls of Niagara. It does not require proof that such a measure would be a yearly and lasting benefit to all the Lake Erie harbors and Detroit River, and a saving of appropriations by the government for deepening them. We say it needs no argument, because, if you reduce the outflow from Lake Erie or any other body of water while the inflow is unimpaired, the level must be elevated.—*Toronto Market Report.*

HOLD-YOUR-WHEAT CIRCULARS.

What the farmers should do is to pay not the slightest attention to such circulars, but rather to consider their own needs and requirements. Wheat is as good as gold the world over, but it will only bring the world's market price. There are always seasons of the year when grain is at its highest price, and he should endeavor to manage his affairs so as to take advantage of that. If he can do this he will need no advice from "Hold-your-wheat" circulars. If he cannot do it, all the circulars in the world will do him no good.—*Chicago Times-Herald.*

GRAIN "TIP" SCANDALS.

The rumor of leakage from the government reports concerning crop prospects is one that should be investigated thoroughly. A large sum yearly is appropriated for the compilation of that very important subdivision of vital statistics which relates to the food supply of the country. If the knowledge which the government thus gains in advance of, and in far more trustworthy form than, any returns that can be had by individual or by corporate effort, has been sold to grain speculators, the sellers should be punished severely.—*Chicago Inter Ocean.*

WASHINGTON'S GRAIN INSPECTION LAW.

There is much misinformation regarding state inspection of grain as provided by the last legislature being published, not perhaps so largely due to a desire to cast discredit upon the law, as from a lack of sufficient investigation on the subject. The new law should be given a fair and impartial trial and this can best be had by rendering such assistance to its workings as possible. The system was the direct outgrowth of the desires of producers and interior shippers, and they should endeavor by a hearty coöperation to secure such advantages as it provides.—*West Coast Trade, Tacoma.*

A CLEAN BILL OF LADING.

If the railroad companies were required to weigh grain consigned in bulk to them, and specify on the bill of lading the quantity they received, there would not be so much grain lost or stolen on the way. It would be to the interest of the companies to have cars that will not leak through the joints, that the openings be properly closed up, and that watchmen be employed to prevent the contents from being taken by thieves. The companies ought to be forced to receipt for quantity as one essential to due care for the interests of persons whose property is confided to them for transportation.—*Chicago Journal.*

IGNORING THE ILLINOIS LAW.

The Railroad and Warehouse Commissioners of this state have done well to call attention to the fact that all railroad companies in Illinois are required to weigh or measure grain at points where it is shipped and receipt for the full amount, and shall be responsible for the delivery of the same at the place of destination. This provision seems to be generally disregarded, and the fact renders it possible for the warehouseman in this city to cheat the owner of the grain consigned to his keeping. The common carrier ought to be obliged to make acknowledgment of the quantity of property he undertakes to handle, and to account for the whole of it when he releases possession of the same.—*Chicago Tribune.*

ABOLISHING CROP REPORTS.

It is claimed that the Secretary of Agriculture is in favor of abolishing the monthly crop reports now issued by the Department on the ground that they are "mere guesses." He might have gone still farther and admitted that all the statistics of the Department, even the final returns of the crop yields, are "mere guesses," and in some instances been rather poor efforts at that. If the United States wants to take a retrograde movement, and relegate itself to the position of China and Japan, it might be wise to adopt the recommendation of the Secretary of Agriculture. We do not believe the people of the United States want the crop reports abolished, but they do want them improved so that they can rely on them, and also want them withheld from a few speculators twenty-four hours before they are issued to the general public. It

is the individual who advertises liberally who succeeds in doing the business, and it is the country which presents its statistics freely to the world which attracts the attention of the business public.—*Trade Bulletin, Chicago.*

PRICE GOVERNED BY SUPPLY AND DEMAND.

Those who would suppress all speculation in wheat allege that dealing with fictitious quantities of wheat has an inevitable tendency to depress wheat values by the creation of what, for the purpose of argument, may be termed an unreal surplus. It is a question whether there is, after all, so much in this contention. The speculator in wheat—that is to say, the man who buys or sells wheat forward without any intention of giving or taking delivery—is simply betting on the statistical position of wheat at the moment he makes his deal. The price of wheat is governed, like the price of all other commodities, by demand and supply, and it seems absurd to maintain that the sale and purchase of what our American cousins call "wind wheat" is any serious factor in the market value of that cereal.—*The Miller, London, Eng.*

ANTI-OPTION LEGISLATION.

We are more than glad to see that the subject of option dealing and the deleterious effect of the present system on legitimate business is being actively discussed in the trade circles of Great Britain. We have consistently and positively favored and supported every anti-option movement and measure which has been advanced, believing none of them perfect or practical, but any of them preferable to the present system. We trust that an anti-option bill will be presented before the next Congress, and we predict that the speculators and gamblers will be unable to rally many of the legitimate concerns to their support, for the last few years have produced lessons which will not be forgotten. There has been a great awakening among millers during recent years as to the real effect of option trading upon legitimate business. Opinions have changed, and the specious reasoning of the grain gamblers, which had force to work against the various bills presented heretofore, has been shown to be entirely fallacious, and cannot be used with such effect again.—*Northwestern Miller.*

OVERHAULING A GASOLINE ENGINE.

A gasoline engine of about 3 horse power, which would run down after a little use each time it was started, proved beyond the capabilities of the engineer, and an expert was called upon to investigate. The first thought was naturally of the carburetor. Investigation proved that this appliance was in perfect condition. Next the quality of the gasoline was inquired into. Gasoline engine builders specify that flashing point of 57 degrees is the best for use in their engines. The gasoline in question had a flashing point of 88 degrees, a difference too small to be worth considering. Next the battery was looked into. By short circuiting the wires a good spark was obtained. The plug was then removed from the back end of the cylinder, the engine placed on center and contact made with the wire upon head of electrode pin. No spark was visible, proving that there was a poor contact in the cylinder or no contact at all.

Next contact was made with electrode pin, and the engine revolved a few times, close watch being kept meanwhile over the plug hole in end of cylinder. No spark was discovered when the engine went over the center upon alternate revolutions. This proved that something was the matter with the electrical connections in the inside of the cylinder.

The air pipe was disconnected and the gasoline holes removed, then the cylinder head was taken off. This operation had to be done in the night, and it is not pleasant to work in a small room with ten or fifteen gallons of naphtha at one's elbow, especially where a naked flame gives light. To make all secure against possible accident, the lamp was extinguished and the carburetor having all openings carefully closed was carried bodily out of the building at a safe distance therefrom.

It would be a good idea for all gasoline engines to have the carburetor located underneath the building in a separate room or buried in the earth at some convenient point near by. Every gasoline hose should be fitted with a check valve. There is also a wire gauze to prevent flame from working its way back into the hose; but in spite of these precautions accident may occur. The check valve may stick and an explosion of gas in the cylinder may cause back pressure in the carburetor, which might blow a quart or two of naphtha out of the air passage. Such an occurrence would certainly result in disaster should there be the least particle of flame in the vicinity of the carburetor at that time.

The electrode pin, which passes through the cylinder head, was removed, and found to be badly gummed. The brass shell, into which it was fitted, required to be insulated from the cylinder head. This was done by placing a bushing of asbestos around the shell, and a couple of asbestos washers around the nuts, before screwing them up. In setting up the engine it had fallen down, bending the electrode pin, which came in contact with the machine. This pin

was replaced by a new one by the maker. It did not work easily in the brass shell through which it passed, and it was presumed that the shell likewise had become bent during the fall referred to. This was proved to be the case by inserting the old pin in the shell. The bend in the pin corresponded to the bend in the shell, and the electrode would play easily back and forth. The shell was approximately straightened by a judicious application of hammer force, without removing it from the cylinder head.

The asbestos packing proved a soft and yielding fulcrum during the straightening operation. It was found that the electrode pin projected too far into the cylinder, and would have about an inch vibration back and forth whenever it touched the piston head. This was adjusted, of course. The air and gasoline valves received due attention, and were cleaned and adjusted to operate lightly and perfectly. The governor proved to be badly out of adjustment, and a piece of stick was inserted and fastened with a cord in such manner as to render the governor inoperative.

Despairing of producing an explosion, and noting a peculiar performance of the air valve, the expert set out to trace up the action of the air from the atmosphere to the cylinder. Naturally the first move was to ascertain if the air pipe was unobstructed. It was found that the pipe projected through a hole in the base of casting of the machine. It was also found that there was no opening from inside of machine base to the atmosphere, except around the pipe and through one or two other small openings formed by drill holes. This was a clew worth following up, and the pipe leading from air valve to inside of engine base was promptly disconnected. Again effort was made to start, and an explosion was produced during the second revolution. There was no further trouble, and the machine exploded gas regularly at every other revolution.

The adjustment of the governor and the several valves, being only mere details, was effected as soon as convenient, and no more trouble has been experienced in running that engine. The cause of the trouble was, first, the entire mechanism being out of adjustment; second, the lack of the proper supply of air to mix with the gasoline vapor.

THE MARKETS.

We will be pleased to publish under this head short reviews of the conditions ruling in the different markets. Copy must reach us by the morning of the 14th of each month.

GRAIN REPORT OF SHANKS, PHILLIPS & CO., Memphis, Tenn., July 12.—WHEAT is in demand in this market, No. 2 Soft Winter selling at 66 cents. CORN is in fair demand for immediate delivery, No. 2 White selling at 27 cents, No. 2 Mixed at 25@26 cents. OATS are quiet. No. 2 White sells at 22 cents, No. 3 White at 21 cents, No. 2 Mixed at 20 cents, No. 3 Mixed at 18½@19 cents. HAY is dull and weak. Choice Timothy sells at \$14.00, No. 1 at \$11.00@12.75; Choice Clover Mixed at \$13.00, No. 1 Mixed at \$11.75@12.00, No. 2 Mixed at \$9.25@9.75; Choice Kansas Prairie at \$7.50; No. 1 Kansas Prairie at \$6.00@6.50; Choice Arkansas Prairie at \$5.00.

GRAIN REPORT OF COLLINS & CO., Cincinnati, October 12.—There has been no essential relief from the drought in the regions that have suffered from it, during the past week, and this has deterred the seeding operations of wheat and lessened the area planted as compared with last season. Values have ruled a shade lower on nearly all grain during the past week, with the general movement growing in volume, and, while the demand is more active than that which has prevailed for some time past, it is still short of previous years. With the gradual but general improvement in nearly all avenues of trade, the low values in grain should and undoubtedly will attract outside investment and the trade in general to carry larger supplies, which will widen the demand and bring about greater activity.

WHEAT.—The receipts are almost nothing, and values very quickly recovered from the weakness that prevailed the forepart of the week, and the few offerings are in active demand at the higher prices ruling. No. 2 Red at 68 cents, No. 3 Red at 64@65 cents, No. 4 Red at 62@63 cents, ungraded, damp smutty or musty at 55@61 cents as to quality and condition. CORN.—The demand continues to rule small, but prices are fairly steady at the slight decline, as the arrivals have not been very large. Any large movement of corn would cause prices to go lower. There is anticipated a movement of new shelled corn next week, and as there has been no inquiry as yet prices are difficult to determine, but judge values will rule between 25@30 cents to begin with for new. We quote old No. 2 White at 31½@32 cents, Mixed at 31½@32 cents, No. 3 at 30@30½ cents.

EAR CORN.—The movement is larger, and the offerings meet with but a moderate demand, and the tendency is lower; there have been some few arrivals of choice new yellow which have sold at 30@51 cents, but the inclination is to hold off and wait for lower prices before buying freely. We quote old choice yellow at 34 cents, Mixed at 32@33 cents, White at 31@32 cents. OATS.—The receipts have been a little larger, and prices have shown some little inclination to further weakness, but the consumption of oats, owing to the low prices, is on a much larger scale, and the demand rather active and absorbing the offerings, creating a more steady feeling. No. 2 White at 22@22½ cents, No. 3 White at 21 cents, No. 2 Mixed at 21 cents, No. 3 Mixed at 19½@20 cents, ungraded musty, etc., at 17@18½ cents, as to quality and condition. RYE.—The receipts and demand continue to rule small, No. 2 at 45@45½ cents.

HAY.—Receipts for the week were 971 tons, shipments 150 tons; for the corresponding week last year receipts were 1,933 tons, shipments 804 tons. There continues to be but little change in the general conditions governing the market, low grades are a drag upon the market, while the top qualities of timothy, clover and clover mixtures find ready sale at good prices. Choice Timothy at \$14.50@15.00, No. 1 at \$14.00@14.50, No. 2 at \$12.00@12.50, No. 3 at \$8.00@9.50, Choice Green Prairie at \$8.50@10.00 as to quality. Clover Mixed and Choice No. 1 Green Clover at \$12.00, No. 2 at \$10.00@11.00 as to quality.

STRAW.—Wheat, at \$4.50. MILL FEED.—The demand ruling little more active.

AN ENGLISH FLOATING ELEVATOR.

Messrs. Stott & Co., Haslingden, have constructed a large floating elevator, which has been specially designed for automatically discharging grain from lighters and barges and delivering into steamers or warehouses. The machine was put into operation recently, and the trial proved most satisfactory, and when the machine was running at its normal velocity the grain was lifted at the rate of over 120 tons per hour, or two tons per minute—a marvelous performance. The machine consists of a large derrick elevator, constructed on the bucket and chain principle, hung at the end of a pair of derrick arms, which are raised and lowered by means of a power-driven crane. This derrick elevator delivers the grain into the foot of a large fixed elevator built upon the pontoon, and which discharges the grain either into warehouses or into steamers as required. Each of these two elevators, with all gearing in connection with the same, are carried by means of a strong wrought-iron frame or trestle, about 50 feet high. Arrangements are also made to deliver the grain from the fixed elevator on pontoon to barges in river by means of portable band conveyors. Power for driving the whole machine is supplied by a pair of high pressure non-condensing steam engines. The machine will effect a great saving in the discharge of grain cargo.—*Steamship Leith, Scotland.*

LOCATIONS FOR FACTORIES.

The name of the Chicago, Milwaukee & St. Paul Railway has long been identified with practical measures for the general upbuilding of its territory and the promotion of its commerce, hence manufacturers have an assurance that they will find themselves at home on the company's lines.

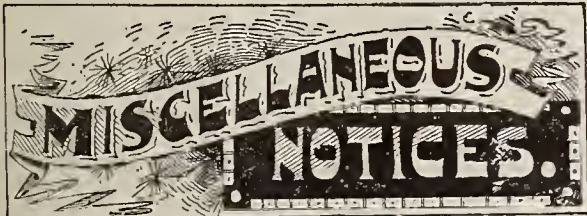
The Chicago, Milwaukee & St. Paul Railway Company owns and operates 6,150 miles (9,900 kilometers) of railway, exclusive of second track, connecting track or sidings. The eight states traversed by the lines of the company, Illinois, Wisconsin, Northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota, possess, in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory—a people who form one live and thriving community of business men, in whose midst it is safe and profitable to settle. Many towns on the line are prepared to treat very favorably with manufacturers who would locate in their vicinity.

Mines of coal, iron, copper, lead and zinc, forests of soft and hard wood, quarries, clays of all kinds, tan-bark, flax and other raw materials exist in its territory in addition to the vast agricultural resources.

A number of new factories have been induced to locate—largely through the instrumentality of this company—at towns on its lines. The central position of the states traversed by the Chicago, Milwaukee & St. Paul Railway makes it possible to command all the markets of the United States. The trend of manufacturing is westward. Nothing should be permitted to delay enterprising manufacturers from investigating. Confidential inquiries are treated as such. The information furnished a particular industry is reliable. Address

LUIS JACKSON,
Industrial Commissioner, C., M. & St. P. R'y,
425 Old Colony Building, Chicago, Ill.

J. R. Willard says: "Chicago will be speculatively an almost exclusively spring wheat market this season, as it was a winter wheat market last season. Deliveries on contracts will be spring wheat, and it will come from the Northwest. If the crop up there is as large as generally supposed, it may come down here in such a flood as to depress prices seriously. On the other hand, the active demand from winter sections will be a sustaining factor, and it may be expected to counteract to a great extent the depressing effect of heavy spring wheat receipts."



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ILLINOIS ELEVATOR WANTED.

I want to lease an elevator for a term of years, on a Chicago road, in Central Illinois. Address

D. A., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

PARTNER WITH CASH WANTED.

Wanted—Some good grain firm in Chicago or elsewhere to furnish cash to buy and hold this cheap corn. I will do the work and divide the profits. I can crib 50,000 to 100,000 bushels of corn at 18 to 20 cents. Can give good references. I operate at three good stations. Want a good partner with cash. I have three elevators. Address

HUSTLER, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

RUDY'S PILE SUPPOSITORY

Is guaranteed to cure Piles and Constipation, or money refunded. 50 cents per box. Send two stamps for circular and free sample to MARTIN RUDY, Registered Pharmacist, Lancaster, Pa. NO POSTALS ANSWERED. For sale by all first-class druggists everywhere. Peter Van Schaack & Sons, Robert Stevenson & Co., Morrison, Plummer & Co., and Lord, Owen & Co., wholesale agents, Chicago, Ill.

DAVIS' GRAIN TABLES.

The value of wheat or any grain at 60 pounds to the bushel, for any amount less than 100 bushels is shown without addition or multiplication, and for any amount over 100 and under 1,000 bushels, with but a single addition; at any price from 25 cents to \$1.25 per bushel. The value of bushels and pounds of other grain also is shown at 56, 48 and 32 pounds to the bushel at any price from 15 cents to \$1.50 per bushel. Price, postpaid, \$1.25. Address

E. D. DAVIS, 610 Nicollet Ave., Minneapolis, Minn.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

GRAIN AND COAL BUSINESS.

Grain and coal business in Central Ohio for sale. Good grain point. Address

M. T., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

INDIANA ELEVATOR.

A new elevator in good grain country for sale. Gasoline power. Chicago rates east. Only elevator in vicinity. Good corn crop and excellent chance to crib corn. Good reason for selling. Price \$2,000. Address

C. L. AMES, Francesville, Ind.

ILLINOIS GRAIN BUSINESS.

For Sale—One grain elevator, complete, 100,000 bushels' capacity; cribs for ear corn, 80,000 bushels' capacity. Also with the above one store with living rooms, and coal business. Located in Central Illinois. This is a bargain. Price \$35,000. Not for trade, but is offered for cash. For further particulars address

L., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

GRAIN ELEVATOR FOR SALE.

Steam power grain elevator, on Chicago & Alton Railroad, in Missouri, for sale. Convenient to Chicago, St. Louis and Kansas City. Corn sheller, scales, office, etc., complete. Splendid grain country; finest corn crop this season ever known. Very healthy location. Now in operation and rented to good advantage. Address

ELEVATOR, Mt. Leonard, Mo.

FOR SALE.

THREE GRAIN ELEVATORS

In Western Iowa on C. & N. W. R. R.

MARTIN D. STEVERS & CO.

COMMISSION MERCHANTS,

218 La Salle St., CHICAGO.

SEND ORDERS FOR

HARD
SOFT
BLOCK
BLACK-
SMITH

COAL
COKE

Best Grades
Best Prices.
Best Deliveries

TO MILES & COMPANY,

MINE AGENTS AND SHIPPERS

PEORIA, ILL.

ROOFING AND SIDING.

Standing Seam Steel, Corrugated Iron, Metal Shingles, Felt Roofing.

ELEVATOR AND MILL IRON SIDING A SPECIALTY.

Kansas City Metal Roofing

and Corrugating Co.,

416 Delaware St., KANSAS CITY, MO.

JAMES A. MILLER & BRO.,

129 and 131 South Clinton Street, CHICAGO,

Corrugated Iron Roofing and Siding

Material Only or put on Complete.

Special pains are taken to get out these materials so they can be cheaply put on and make a good job.

ROOFING

SLATE

JAS. L. FOOTE,
Manager.

SLATINGTON, PA.

Write for New Slate Manual and Price List.

STEEL ROOFING AND SIDING.

Established 1872.

SCOTT & CO.,

75 East Front Street, CINCINNATI, OHIO.

FOR MILLS AND ELEVATORS.—We pay the freight.



DURABLE—EASILY APPLIED.

This roofing is manufactured from natural Trinidad asphalt materials, and will not dry up and become brittle under exposure to the weather as coal tar roofings do. Send for free sample of roof 12 years old, with circular and price list, to

WARREN CHEMICAL & MFG. CO.,
56 Fulton St., New York, U. S. A.

Porter Iron Roofing and Corrugating Co.,

Race and Front Streets, Cincinnati, Ohio,

Manufacturers of all kinds of

Iron and Steel Roofing and Siding, Galvan-

ized Steel Roofing,

Eaves Troughs,

Conductor Pipe,

etc., etc.



The pioneers of the metal roofing business in the U. S. When writing for our prices and illustrated catalogue mention this paper.

Gutta Percha Roofing.

Absolutely fire proof paper sheathing—particularly adapted for elevators. Send for illustrated catalogue.

EMPIRE PAINT ROOFING CO., 221 N. 4th St., Philadelphia, Pa.

Wire Edge. Lock Joint.

For Flour, Grist Mills and Elevators.

VERMIN PROOF.

COMMISSION CARDS.

[We will not knowingly publish the advertisement of a bucket-shop keeper or irresponsible dealer.]

CHICAGO BOARD OF TRADE.

As many complaints are coming to the Chicago Board of Trade showing that persons intending to deal in grain and provisions through members of the Board, and subject to its rules and regulations, are misled into dealing with persons or firms who have no connection with this Board, the public is cautioned against dealing with such persons or firms, and is notified that GEORGE F. STONE, Secretary, will answer any inquiries as to whether any particular person or firm is a member of such Board.

GEORGE F. STONE, Secretary.

E. L. ROGERS & CO.,

ESTABLISHED
1863.

COMMISSION
MERCHANTS,

GRAIN, Flour, Seed, Hay and Straw.

135 S. Second St., (Chamber of Commerce) PHILADELPHIA, PA.

Liberal advances made on consignments. Market reports furnished gratuitously on application. Correspondence solicited.

References: { Corn Exchange National Bank,
Manufacturers National Bank,
Merchants National Bank.

COLLINS & Co.,

STRICTLY COMMISSION

Grain, Hay and Mill Feed.

CINCINNATI, OHIO.

Established 1879.

LEDERER BROS.,

GRAIN and SEED,

Commission Merchants,

214 and 216 Patterson St., - - Baltimore, Md.

We give careful attention to every shipment. Are always prepared to make cash advances on consignments. We make a specialty of handling spot goods, which we either sell after arrival or hold, if requested. We solicit your trade, as we do a strictly commission business.

References: Merchants' National Bank, Baltimore, Md., and the Commercial Agencies.

LEMAN BARTLETT.

O. Z. BARTLETT.

L. Bartlett & Son,

GRAIN AND PRODUCE
COMMISSION MERCHANTS.

BARLEY A SPECIALTY.

Room 23 Chamber of Commerce Bldg.
Milwaukee, Wis.

Careful attention given to orders from Brewers, Maltsters and Millers.

Robert McKnight & Sons,

COMMISSION MERCHANTS

AND DEALERS IN

GRAIN, FEED AND HAY,

2106 and 2108 Market Street, - PHILADELPHIA.

REFERENCES: { Merchants' and Third National Banks,
PHILADELPHIA.

W. F. JOHNSON.

F. J. SCHUYLER.

W. F. JOHNSON & CO.,

Grain, Seed and Provision

COMMISSION MERCHANTS

Room 59 Board of Trade, CHICAGO.

Rooms 406-408 Corn Exchange, MINNEAPOLIS.

Room 317 Chamber of Commerce, ST. LOUIS.

Room 23 Chamber of Commerce, MILWAUKEE.

Address all Correspondence to and make all Drafts on Chicago.

COMMISSION CARDS.

J. J. BLACKMAN.

G. W. GARDINER.

J. J. Blackman & Co.,

COMMISSION MERCHANTS,

WHEAT, CORN, OATS, BRAN, MIDDINGS, SCREENINGS, HAY,
SEEDS, BEANS, PEAS AND CORN GOODS.

95 Broad Street, Rooms 604 and 605, - NEW YORK.

Mohr-Holstein Commission Co.,

GRAIN AND PRODUCE
COMMISSION MERCHANTS,

BARLEY, WHEAT AND SEEDS

SPECIALTIES.

Room 29, Chamber of Commerce.

Milwaukee, Wis

Branch Houses: Chicago and Minneapolis.

S. W. FLOWER & CO.,

GRAIN AND SEEDS,

—TOLEDO, OHIO.

Specialties—Clover, Timothy and Alsike. Correspondence Solicited.

D. G. Stewart,

GRAIN AND COMMISSION.

Proprietor IRON CITY GRAIN ELEVATORS.

Capacity, 300,000 Bushels.

LIBERAL ADVANCES ON ALL CONSIGNMENTS.

CORRESPONDENCE SOLICITED.

OFFICE, 1019 Liberty Street, - PITTSBURGH, PA.

ESTABLISHED 1871.

S. T. EDWARDS.

E. J. LOOMIS.

F. W. EDWARDS.

S. W. Edwards & Son,

ESTABLISHED 1870.

HAY, GRAIN AND FEED,
COMMISSION MERCHANTS.

Office and Warehouse,
110-120 N. Elizabeth Street, Chicago.

REFERENCES: { Union National Bank, Chicago, and
Dun's Mercantile Agency.

We are members of the Board of Trade and have salesmen at the principal railroad yards.

H. B. SHANES.

Established 1873.

S. H. PHILLIPS.

Shanks, Phillips & Co.,

COMMISSION MERCHANTS,

HAY, CORN, OATS, BRAN, CHOPS, FLOUR AND CORN MEAL.

306 Front St., Memphis, Tenn.

Refer to Union and Planters' Bank. Cash advances on B. of L.



F. H. PEAVEY & CO.,

Minneapolis,

GRAIN RECEIVERS.

Consignments Solicited.

Minn.

MILLING WHEAT A SPECIALTY.

SHIP YOUR GRAIN

—TO—

P. B. & C. C. MILES,

COMMISSION MERCHANTS,

PEORIA, ILL.

Established 1875.

LIBERAL ADVANCES
QUICK RETURNS.

REFERENCES:—Commercial Nat. Bank, Peoria Savings, Loan & Trust Co., Peoria.

COMMISSION CARDS.

ACCOUNTS OF GRAIN DEALERS
OR ORDERS FOR

Speculative Investments

On the CHICAGO BOARD OF TRADE SOLICITED.

Call at our office or write for private Cipher Code or Shippers Grain Record.

MCLAIN BROS. & CO.,

RIALTO BUILDING, CHICAGO.

E. R. Ulrich & Son,

SHIPPERS OF

WESTERN GRAIN,

ESPECIALLY

High Grade White and Yellow Corn.

Elevators through Central Illinois on Wabash Ry., Chicago & Alton Ry., C., P. & St. L. Ry., and St. L., C. & St. P. Ry.

Main Office, 6th Floor, Illinois National Bank Building,

SPRINGFIELD, ILLINOIS.

Write for Prices Delivered.

E. P. MUELLER,

Shipper of Wet Feed,

From Chicago, Milwaukee and La Crosse.

Particular attention paid to the shipments
of mixed car lots.

860 Calumet Bldg., 189 La Salle St., CHICAGO.

Will pay the highest prices for Wet and Dried Brewers' Grains, Dried Distillers' Slops, Starch Feed, Damaged Wheat, Hominy Feed and Barley Sprouts under yearly contracts

Write for estimates F. O. B. cars your city.

Killpatrick, Lucas & Co.

GRAIN AND HAY.

REFERENCES:

Girard National Bank, Phila.
John Lucas & Co., Chicago.

Advances on Bill of Lading.

Market reports furnished free.
Correspondence solicited.

Philadelphia, Pa.

GEO. N. REINHARDT & CO.,

Melrose Station, New York City.



We sell on Commission and buy direct,

HAY, GRAIN AND FEED.

Storage capacity, 18,000 bales, 30,000 bushels.
Let us know what you have to offer.

To POULTRY RAISERS.

The Complete Poultry Manual is a neat little work which is well worth reading by those interested in poultry, or by boys or girls who want to turn an honest penny. The price is only 25 cents. Sent postpaid on receipt of price. Address

MITCHELL BROS. CO.,

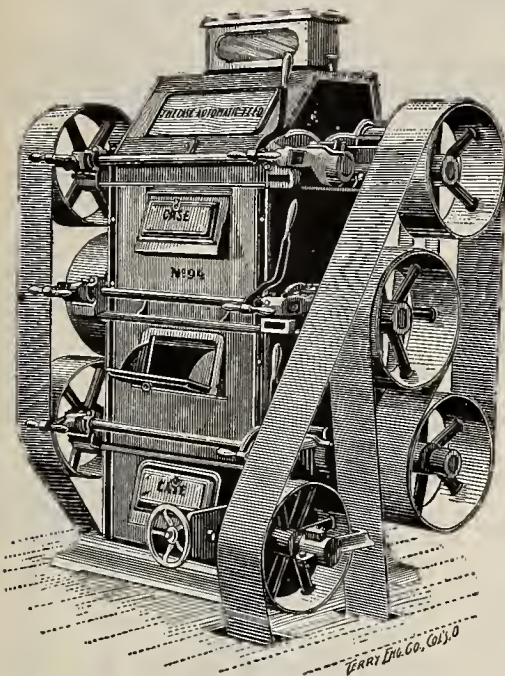
184 Dearborn Street, Chicago, Ill.

ELEVATOR MEN,

Who put in a ROLLER FEED MILL last season, found it a profitable investment. Some Roller Feed Mills put in by elevator men have more than paid for themselves in one season. The demand for ground feed during the coming season promises to be even greater than during the last.

The Case Three-Pair High Corn and Feed Roller Mills

Are made in four sizes, and always do perfect work.



ONTARIO, IND., April 8, 1895.

The Case Manufacturing Co.,
Columbus, Ohio.

DEAR SIR:—We have the 9x18 Three-High roll running, and it is the best Feed Roll that I ever handled or seen. We can grind 60 to 65 bushels per hour with less than half the power that we used with the old stone.

She is a daisy. We have smiles all over our faces like a full moon. Now, if you want a statement regarding the roll, let me know, and will write you a good one. Everything all O. K. Yours respectfully,

M. S. MILLER.

WE KEEP A FULL LINE OF

Elevator and Mill Supplies
AND MACHINERY.

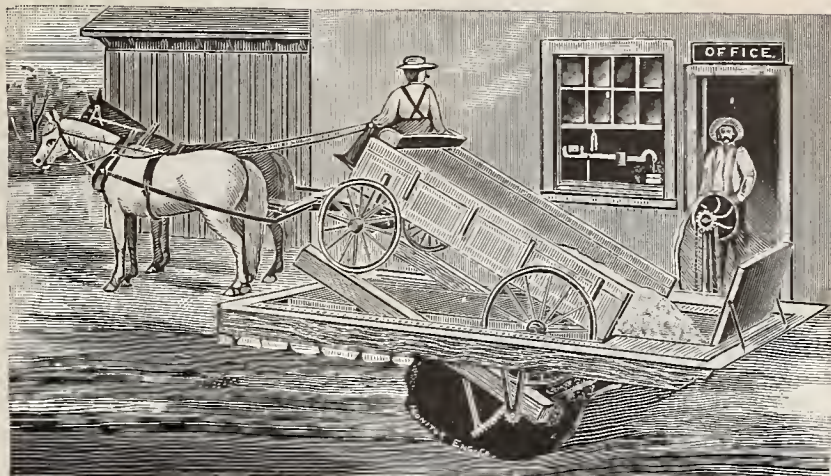
Grain Cleaners, Corn Shellers, Corn Cleaners and Scourers.

CORN MEAL BOLTS.

WRITE US FOR PRICES BEFORE BUYING.

THE CASE MFG. CO., Columbus, Ohio.

Savage & Love's



PATENT WAGON DUMP

The only dump made that is always under the complete control of operator.

LINDENWOOD, ILL., July 7, 1895.

SAVAGE & LOVE CO., Rockford, Ill.

GENTLEMEN:—I have used your Wagon Dump for unloading grain in my elevator, and can only say that it gives entire satisfaction. I can dump a hundred-bushel load of grain easily, throwing the dump clear down, or only part way, as I choose. I have used it constantly for six years, have not had a cent of repairs and it is in as good condition as when put in. I would not have any other dump that I have seen.

Yours truly,

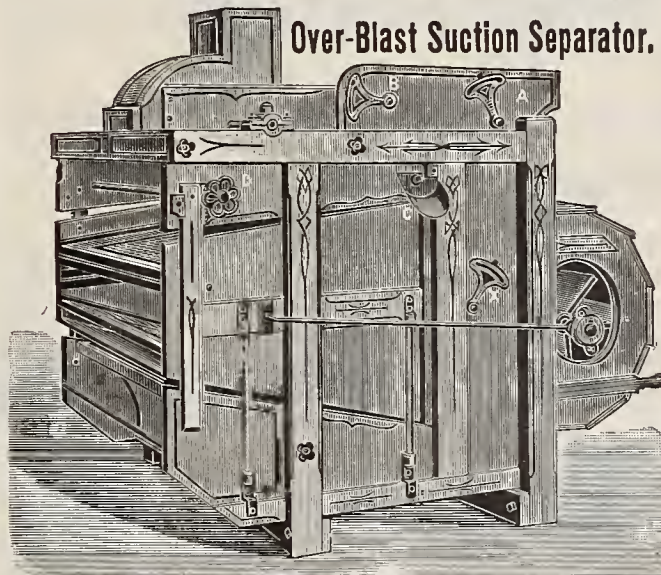
C. E. PERRY.

MANUFACTURED ONLY BY

THE SAVAGE & LOVE CO., Rockford, Ill.

FAIRBANKS, MORSE & CO., St. Paul, Minn., Northwestern Agents.

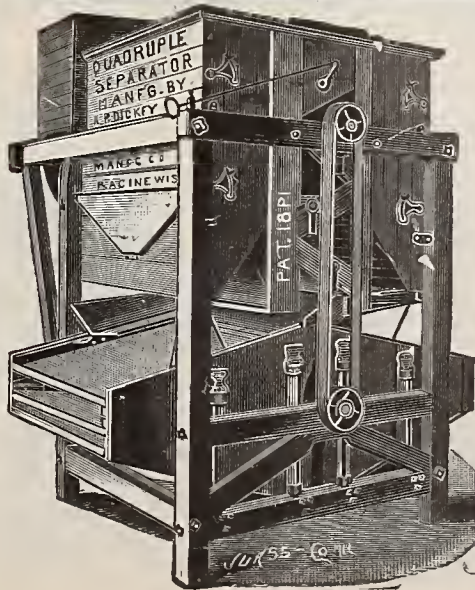
THE CELEBRATED A. P. DICKEY GIANT GRAIN CLEANERS.



THE
STANDARD
IN THEIR
LINE.

"Grain
Cleaned
to a
Standstill."

Manufactured in any desired size and pattern, with capacities to accommodate the largest Elevator and Flouring Mills, or small Warehouses for hand use. Single and Double, End and Side Shake, and Dustless Separators, both Under and Over-Blast.



The Quadruple Suction Dustless Separator. Four separate suction, independent of each other with sieves and screens, requiring less power, less floor space, lower in height, needing less bracing, has better and more perfect separations, and furnishes with the only perfect force feed and mixer on the market. Guaranteed to clean Grain to any desired standard without waste once through this machine twice as well as any machine made.

For CIRCULARS and PRICES address

A. P. Dickey Mfg. Co.
RACINE, WIS.

LINK-BELT MACHINERY CO.

ENGINEERS - FOUNDERS - MACHINISTS
CHICAGO, U.S.A.

CITY SALES OFFICE, ROOM 1010 MARQUETTE BLDG.
NEW ORLEANS, 316 & 318 ST. CHARLES ST.

LINK-BELT LABOR SAVING MACHINERY

FOR HANDLING ALL CLASSES OF

FREIGHT, CEREALS, ORES, RAW & MANUF'D. PRODUCTS.

SPECIAL CATALOGUES COVERING YOUR LINE MAILED UPON APPLICATION

"Standard" Water-Tube Safety Boilers,

Shafting, Pulleys, Gearing, Rope Sheaves,

Fly Wheels, Friction Clutches, Etc.

LINK-BELT ENGINEERING CO., PHILADELPHIA & NEW YORK.

Roper's Practical Hand-Books for Engineers.

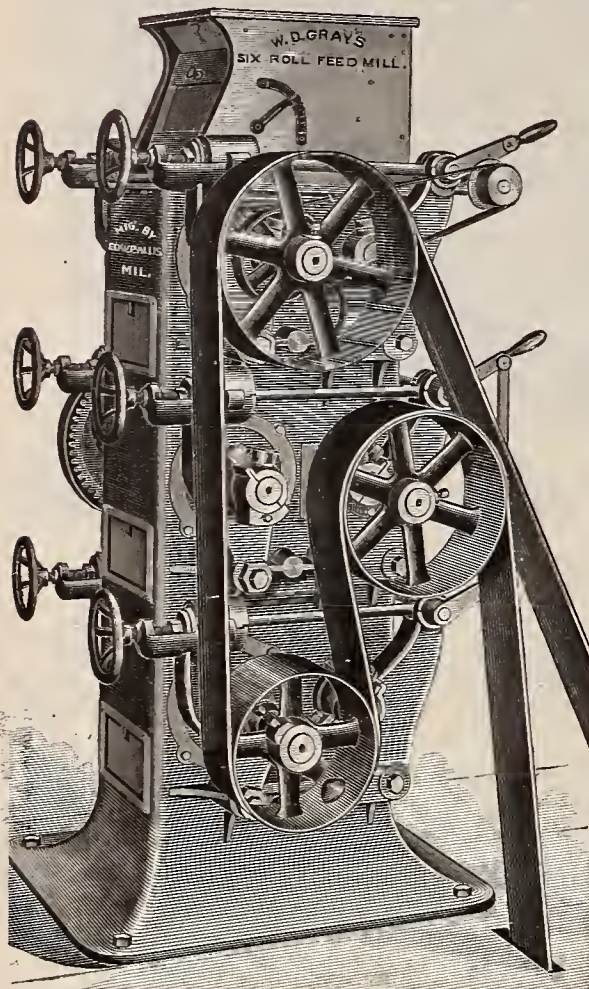
Hand-Book of Land and Marine Engines	Price, \$3 50
Hand-Book of the Locomotive.....	" 2 50
Catechism of High-Pressure Steam Engines...	" 2 00
Use and Abuse of the Steam Boiler	" 2 00
Engineer's Handy-Book.....	" 3 50
Questions and Answers for Engineers.....	" 3 00
Care and Management of Steam Boilers.....	" 2 00
Instructions and Suggestions for Engineers.....	" 2 00
The Young Engineer's Own Book.....	" 3 00

These books embrace all branches of Steam Engineering—Stationary, Locomotive, Fire and Marine. Any engineer who wishes to be well informed in all the duties of his calling, should provide himself with a full set. They are the only books of the kind ever published in this country, and they are so plain that any engineer or fireman that can read can easily understand them. Address

Mitchell Bros. Co., 184 Dearborn Street, Chicago.

HUNDREDS OF MILLERS

USE A FEED MILL LIKE THIS,
AND THIS IS WHAT THEY THINK OF IT:



MANUFACTURED BY

THE EDWARD P. ALLIS CO., - Milwaukee, Wis.

"We got fooled once in buying a cheap, light Feed Mill, but since we got the Allis Feed Roll we are happy once more."

"Your Feed Mill grinds sixty-five bushels of fine meal per hour with fifteen-horse power."

"The farmers now say, 'Grind it a little coarser this time.' With my old feed mill I could never grind fine enough to suit them."

"We ground a car of 650 bushels, sacked it, and put it back in car, all in five hours."

"Our new Allis Feed Mill is paying for itself at the rate of \$4 per hour."

"I astonish the farmers with my Allis Feed Mill, for as soon as their corn is unloaded it is ground and ready to load back in their wagon."

"We advise any man wanting a Feed Mil. to buy the Allis make."

"I have run several different makes of Feed Mills, but none grinds so fast and so fine, and gives so little trouble as the Allis."



WHEN YOU WANT
Elevator or Mill
Supplies,

Cleaning Machines,
Feed Mills,
Corn Shellers,
Engines and Boilers,
Horse Powers,

WRITE TO

GREAT WESTERN MANUFACTURING CO.

General Office and Factory, LEAVENWORTH, KAN.
Warehouse and Salesrooms, KANSAS CITY, MO., 1221-1223 Union Ave.
SEND FOR OUR ILLUSTRATED CATALOGUE.

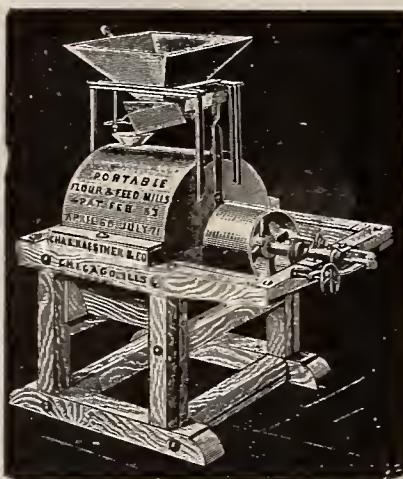
Do You **The Best Feed Grinder on Earth,**
NEED AT PRICES THAT DEFY COMPETITION?

If so, write to

CHAS. KAESTNER & CO.

ENGINES, BOILERS, PUMPS,
POWER MACHINERY,

CHICAGO, ILL.



Akron, Ohio. The American Cereal Co. New York City,
Chicago, Ill. Manufacturers of 55-57 N. Mooe St.
Cedar Rapids, Ia. OATMEALS, 501 Cham. Commerce.
Flour and Cereal Products. Philadelphia, Pa.,
5 S. Front St.

CHICAGO, ILL., August 1, 1895.
MESSRS. CHARLES KAESTNER & CO.
Gentlemen:—Yours of the 30th received, and in reply
would say that we have been using the Kaestner Mill for
the past fifteen years. We think they are the best mill
in the market. We have twelve of them in use at
present. Yours truly,
THE AMERICAN CEREAL CO.,
GEORGE STUART, Supt.

THE SMITH PNEUMATIC TRANSFER AND STEEL STORAGE SYSTEM.

*Now in Successful Operation
at Toledo, Ohio.*

This is an entirely new and complete system for handling, treating and storing grain, seeds, millstuff, coal, sand, gravel, salt and other subdivided substances which can be handled in bulk, and the protection and preservation of cereals, seeds, vegetables, fruits, ensilage and fodder crops, cotton, wool and other fibers, tobacco, provisions and all perishable substances and valuable commodities in absolute safety from fire, water, air, storms, floods, microbes, insects, vermin, animals, thieves, evaporation, fermentation, oxidation or other causes of damage or destruction.

This system has nothing in common with other methods, but is entirely different and distinct, in construction, arrangement and operation, materials used, principles involved, and results obtained, from all others heretofore in use.

It is fully protected by 20 patents already issued, and others pending, in the United States and principal foreign countries.

It was on exhibition at the World's Columbian Exposition of 1893, and was awarded four highest medals and diplomas and received in addition thereto the highest indorsement of the principal officers of the Exposition as well as of the highest authorities in all industries to which it is applicable.

The title to all patents and other rights belonging to this system is vested in The Smith Pneumatic Transfer & Storage Co., and any infringement thereon will receive prompt attention.

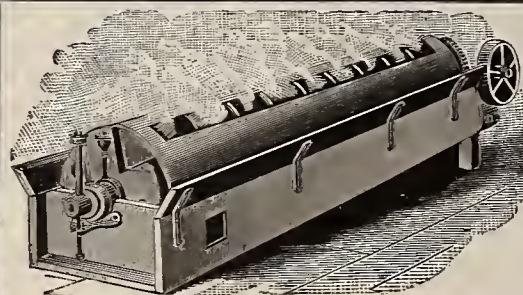
The policy of the Company in regard to the introduction of its system is to make such liberal and easy terms with all who desire to use it that there will be no cause for complaint.

Full particulars furnished on application in person or by letter to

The Smith Pneumatic Transfer & Storage Co.

1327 MANHATTAN BUILDING,

315 DEARBORN ST., CHICAGO.

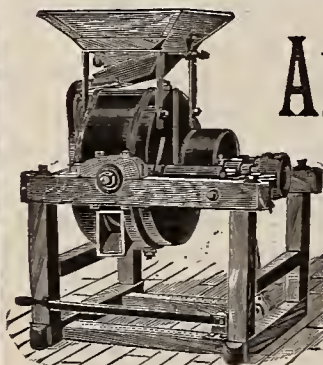


STEAM DRYER

For Cornmeal, Hominy, Buckwheat, Rice, and all kinds of Cereal Products; also Sand, Coal dust, etc.

Drying Cylinder made entirely of iron. The machine has few parts and is not liable to get out of order. Automatic in its operation, requiring no attention. Double the capacity of any other Dryer sold for same price.

USED AND RECOMMENDED BY LARGEST AND BEST MILLS.



Automatic Adjustment Mill.

The adjustment is positive and automatic, utilizing every part of the grinding surfaces. Can be started or stopped at pleasure, without stopping the power. Is dressed without taking the shaft out of its boxes, or the belt off the pulley.

Comprises all Recent Improvements for Producing Goods at Lowest Cost.

SEND FOR CIRCULAR.

THE CUTLER CO., North Wilbraham, Mass.

Everyone who Buys or Sells Grain should
subscribe for the

**American Elevator
And Grain Trade,**

Subscription Price only \$1 per Year.

WRITE TO

MITCHELL BROS. CO. Publishers
184 Dearborn St., Chicago.

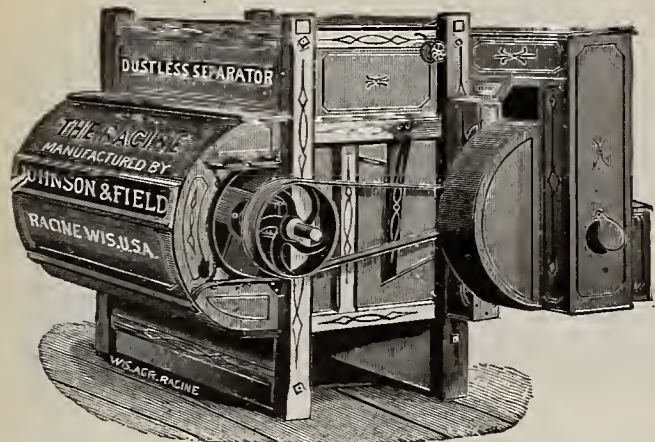
The Bristol Counter



Registers an accurate account of work done on any machine, grain tallies, fraction tallies, 4, 5 and 6 figures. Send for circular.

C. J. ROOT, Bristol, Conn.

"THE RACINE" DUSTLESS GRAIN SEPARATOR



Embodies More Points of Excellence

Than any other machine offered for similar purposes, and is **Light Running, Large in Capacity, Perfect in Separation** and with **Great Strength and Durability**. These machines have no equal. Adopted and indorsed by many of the largest Mills and Elevators in the country.

Made in Different sizes to meet different requirements.

THE RACINE HEAVY WAREHOUSE MILL

Is especially adapted for horse power use, is supplied with **Patent Governor Pulleys**, has an even and steady speed, is built extra heavy and bolted throughout. This machine has large capacity and is more durable than any other Warehouse Mill made.

Send for our catalogue and prices before placing your orders.

IMPROVED GASOLINE ENGINE.

Oil and Steam Engines from 1 to 100 Horse Power.

Elevator Machinery and Supplies,

Scales, Warehouse Trucks, Elevator Boots, Buckets and Bolts, Pulleys, Shafting, Belting, Grain Spouts, Etc.

JOHNSON & FIELD COMPANY, RACINE, WIS.

JEFFREY

Roller Chains, Steel Drag, Steel Cable and Special Chains

FOR

ELEVATING AND CONVEYING MACHINERY

FOR HANDLING MATERIAL OF ALL KINDS

POWER TRANSMISSION MACHINERY.

SHAFTING, PULLEYS, CLUTCHES, BELTS, BOOTS.

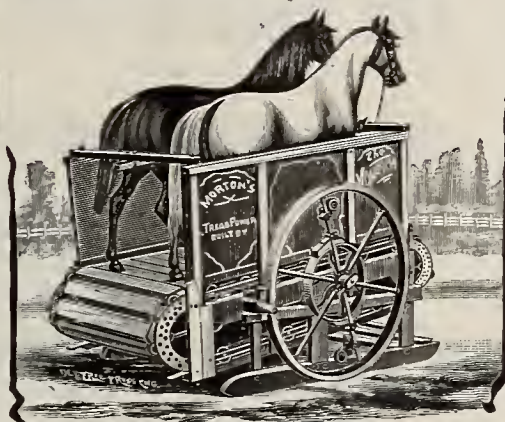
WIRE CABLE CONVEYORS.

For long and short distance conveying.

THE JEFFREY MFG. CO. 163 Washington St. COLUMBUS, OHIO. NEW YORK.

Send for Catalogue.

ELEVATOR HORSE POWERS.



Cheapest, Most Efficient and Durable Power For an Elevator.

PERFECTLY GOVERNED.

A Steady Motion.

No Skilled Help Required to Operate.

For Catalogue, Address

MUSKEGON HEIGHTS, MICH.
Or E. H. PEASE MFG. CO.,
RACINE, WIS., Agents

MORTON MFG. CO.,

An Offer to Hay and Grain Men.

THE AMERICAN ELEVATOR AND GRAIN TRADE,
\$1.00 PER YEAR. Monthly.

THE HAY TRADE JOURNAL AND DIRECTORY,
\$2.00 PER YEAR. Weekly.

BOTH FOR \$2.00.

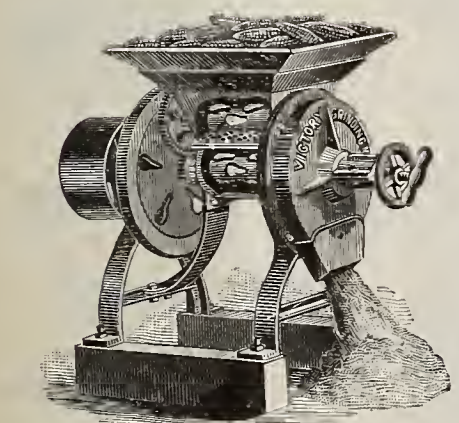
ADDRESS EITHER

The Hay Trade Journal,
Canajoharie, N. Y.

OR

Mitchell Bros. Co.,
184 and 186 Dearborn St., Chicago, Ill.

VICTORY FEED MILL.



Made in four sizes for 2, 4, 8 and 10 horse power, 10 to 50 bushels per hour. Especially adapted to grinding ear corn, shelled corn, wheat, oats, rye, cotton seed, e'c. Oldest and best grinding mill made. Ask for prices and discounts. Manufactured by THOMAS ROBERTS, Springfield, Ohio.

DUST! DUST!



Gibbs' Patent Dust Protector protects the nose and mouth from inhalations of poisonous dust; invaluable in mills, elevators and every industry where dust is troublesome. Perfect protection with perfect ventilation. Nickel-plated protectors \$1, postpaid. Circulars free. Agents wanted.

Gibbs Respirator Co.,
30-36 La Salle Street, - CHICAGO

At 1/4 Price



Sewing Machines, Accordions, Organs, Pianos, Cider Mills, Cash Drawers, Feed Mills, Stoves, Kettles, Bone Mills, Letter Presses, Jack Screws, Trucks, Anvils, Hay Cutters, Press Stands, Copy Books, Vises, Drills, Road Flows, Lawn Mowers, Coffee Mills, Lathes, Benders, Dump Carts, Corn Shellers, Hand Carts, Forges, Scrapers, Wire Fences, Fanning Mills, Wringers, Engines, Saws, Steel Sinks, Grain Dumps, Crow Bars, Boilers, Tools, Bit Braces, Hay, Stock, Elevator, Railroad, Platform and Counter SCALES. Send for free Catalogue and see how to save money.
151 So. Jefferson St., CHICAGO SCALE CO., Chicago, Ill.

KELLY DUPLUX CO.

GRINDING MILL.

The O. SKELLY CO.

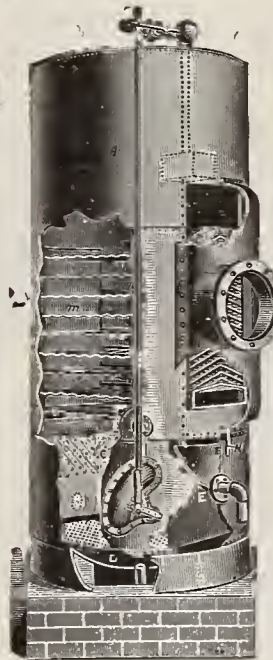
GRIND CORN, HUSKS, SEED, AND ALL GRAINS

SIZES FROM 4 TO 16 HORSE POWER

Satisfaction Guaranteed

Illustrated Catalogue Sent Free

STILWELL'S PATENT IMPROVED.



Lime Extracting Heater. Uses Exhaust Steam. Separates the Oil from the Steam and Water. It Regulates the Feed. The Pipes Never Pound. Prevents Scale in Steam Boilers. Removing all Impurities from the Water Before it Enters the Boiler.

THOROUGHLY TESTED.

Over 4,500 OF THEM IN DAILY USE.

Illustrated Catalogue Free.

The Stilwell-Bierce & Smith-Vaile Co.

DAYTON, OHIO.

Steam Engines and Steel Boilers,

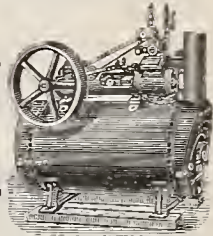
and

UPRIGHT AND HORIZONTAL, From 3 H. P. up.

For Elevator and Mill Work.

Send for pamphlet and state your wants to

James Leffel & Co.
Springfield, Ohio.



American Elevator and Grain Trade.

—PUBLISHED BY—

MITCHELL BROS. CO., CHICAGO.

\$1.00 PER ANNUM.

THE ROBERT MITCHISON PERFORATED METAL CO.

CHICAGO, ILL.

JAMES STEWART & CO.,

ENGINEERS AND CONTRACTORS FOR

Grain Elevators

RAILROAD WORK AND HEAVY STRUCTURES,
ST. LOUIS AND BUFFALO.

Construction Department—Work in 1894:

GRAIN ELEVATORS:

1,000,000-bnshel Elevator, with two Marine Elevating Towers, for the Coatsworth Estate, Buffalo, N. Y.
150,000-bnshel Storage Elevator for the Crescent Elevator Company, East St. Louis, Ill.
750,000-bnshel Storage and Cleaning Elevator for the Ryan Commission Company, St. Louis, Mo.
100,000-bnshel Elevator for the Indiana Distilling Company, Terre Haute, Ind.

RAILROAD BUILDINGS:

Central Passenger Station, including long train shed, for the New York Central & Hudson River R. R. Co., Syracuse, N. Y.
Twenty Stall Round House for the Cleveland, Cincinnati, Chicago & St. Louis R. R. Co., Mattoon, Ill.
Power and Car Houses with Smoke Stack for the Syracuse Street Railway Co., Syracuse, N. Y.
Passenger and Freight Station for the Louisville, Evansville & St. Louis Consolidated Railroad Co. East St. Louis, Ill.
Eight Stall Round House for the Baltimore & Ohio Southwestern R. R. Co., Cumminsville, Ohio.
Warehouse 110x500 feet for the Erie & Western Transportation Co., Erie, Pa.

RIVER AND HARBOR:

Terminal Dock 600x40 feet for the Erie & Western Transportation Co., Erie, Pa.
River Incline for the Illinois Central R. R. Co., Mississippi River, above New Orleans, La.
Dredging Slip 18 foot Channel, No. 1 Slip 150x400; No. 2 Slip 100x200, for the Erie & Western Transportation Co., Erie, Pa.
Stone Arched Bridge for the Cataract Construction Co., Niagara Falls, N. Y.

MISCELLANEOUS:

Office and Transformer Building for the Cataract Construction Co., Niagara Falls, N. Y.
Distillery, 8,000 bnshels' capacity, and Warehouses for George L. Woolsey, Terre Haute, Ind.
50,000 Spindle Mill for the Pelzer Manufacturing Co., Pelzer, S. C.
Cattle Barns, Capacity 3,000 head, for the Indiana Distilling Co., Terre Haute, Ind.

Just Contracted for 25,000 Spindle Mill for the Dwight Mfg. Co., Alabama City, Ala.
Cattle Barns, 2,000 Head, for Indiana Distilling Co., Terre Haute, Ind.



313 THIRD STREET SOUTH, MINNEAPOLIS, MINN.
Branch Office, Great Northern Hotel, Chicago.

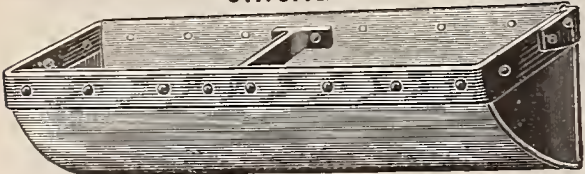
BISULPHIDE OF CARBON,

Of Special Grade for Killing Insects in Warehouses, Etc.

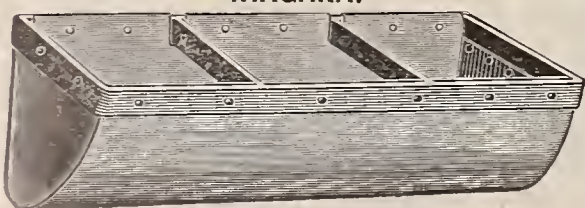
Send for Instructions and Order Direct from the Manufacturer,

EDWARD R. TAYLOR,
CLEVELAND, OHIO.

"CHICAGO."



"NIAGARA."



MOORE & LORENZ,

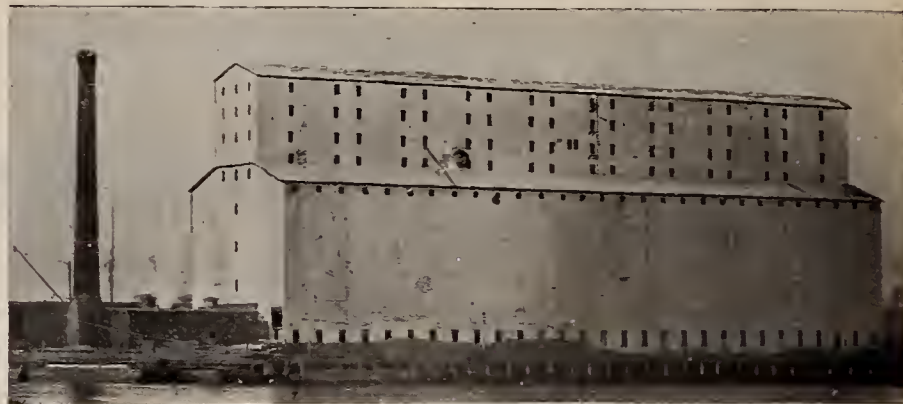
43 to 49 S. Canal Street,
CHICAGO, ILL.,

MANUFACTURERS:

Elevator Buckets,
Bolts, etc.
Mill and Elevator
Supplies.

SIMPSON & ROBINSON CO.

71-72 Commerce Building, CHICAGO.



Designers and Builders of

GRAIN ELEVATORS, MALT HOUSES

And all Kinds of Heavy Construction.

Patent System of Independent
Leg Rope Drive.

Patent Double-Jointed
Distributing Spouts.

Patent Automatic
Grain Belt Tripper.

The Heidenreich Construction Co.,

ENGINEERS AND GENERAL CONTRACTORS,

DESIGNERS AND
BUILDERS OF

GRAIN ELEVATORS

OF ANY CAPACITY.

Malt Houses and Breweries.

541 The Rookery, Chicago, Ill.

C. M. SECKNER, President.

J. H. BROWN, Sec'y and Treas.

THE SECKNER CONTRACTING CO.

Architects and Builders of

GRAIN ELEVATORS

And General Contractors,

79-81 Dearborn St.,
CHICAGO, ILL.

1234 and 1235 UNITY BLDG.

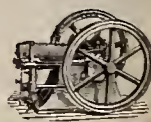
Telephone 5035 Main



DO YOU USE POWER?

WEBER GAS & GASOLINE ENGINE CO., 482 S. W. Blvd., Kansas City, Mo.

All right: you need CHEAP Power. One Cent per Horse Power per Hour is CHEAP. Weber Gasoline Engines run anything. "Economy in Power" is our motto. For Catalogue and testimonials address



WITTE GAS ENGINE WORKS

ADDRESS KANSAS CITY, MO. FOR CATALOGUE H

TROMANHAUSER BROS.,

ARCHITECTS, CONTRACTORS, AND BUILDERS OF

GRAIN ELEVATORS.

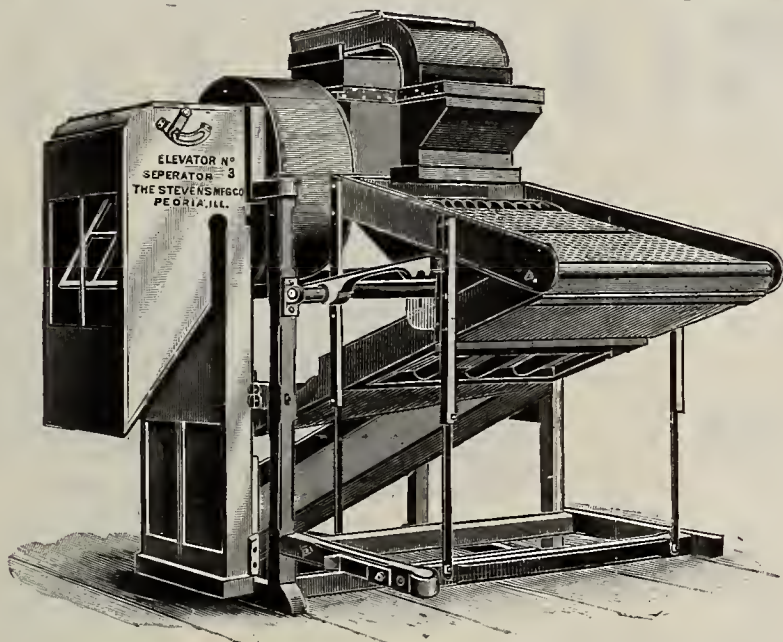


COUNTRY,
TRANSFER,
MIXING,
MARINE,
AND
TERMINAL
STORAGE
ELEVATOR
PLANTS.

Plans Submitted and Estimates Furnished.

315 New York Life Building, . . . MINNEAPOLIS, MINN.

Stevens Dustless Warehouse Separator.



This machine is designed for warehouses or elevators of medium capacity. It has every feature to insure perfect work. No grain or chaff can be drawn into the fan and hurled into the dust room or out of doors. By the use of the proper perforated sieves, this machine will clean perfectly wheat, rye, oats, barley, buckwheat and peas.

Built in five sizes. Send for catalogue, description and prices. We sell all our machines under a guaranty. Address

THE STEVENS MILL & ELEVATOR MACHINERY CO., Peoria, Ill.

IT REACHES THE TRADE.

J. T. SAVAGE, President.

A. E. SAVAGE, Sec'y and Treas.

SAVAGE & LOVE CO.,

Manufacturers of Savage & Love Wagon Dumps,

Engines, Boilers, Shafting, Hangers, Pulleys,
Belting and Mill Supplies.

ROCKFORD, ILL., July 3, 1895.

MITCHELL BROS. COMPANY, CHICAGO, ILL.

GENTLEMEN:—* * * * We are very much pleased with the results we are getting from our "ad," and are satisfied that the AMERICAN ELEVATOR AND GRAIN TRADE is the paper to reach the grain trade. Yours truly,

SAVAGE & LOVE COMPANY,
A. E. SAVAGE, Sec'y and Treas.

Macdonald Engineering Company,

CONTRACTING ENGINEERS,

Builders and Designers of

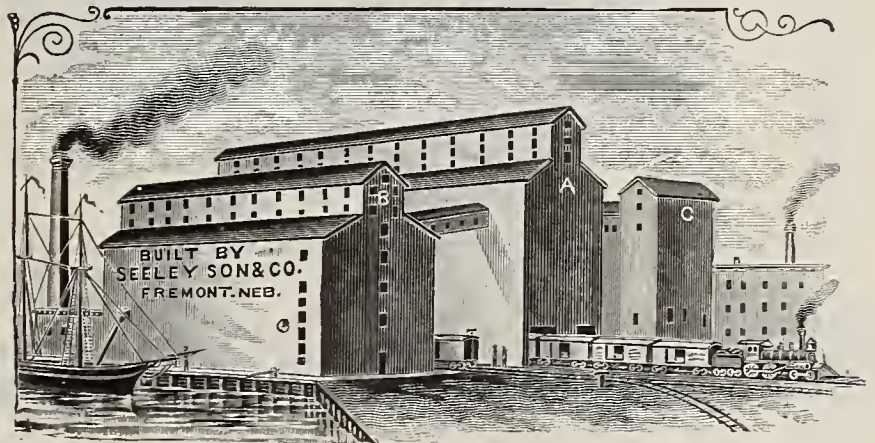
GRAIN ELEVATORS

Any Capacity.

710 Medinah Bldg., Chicago, Ill.

SEELEY, SON & CO.,

Fremont, Neb.



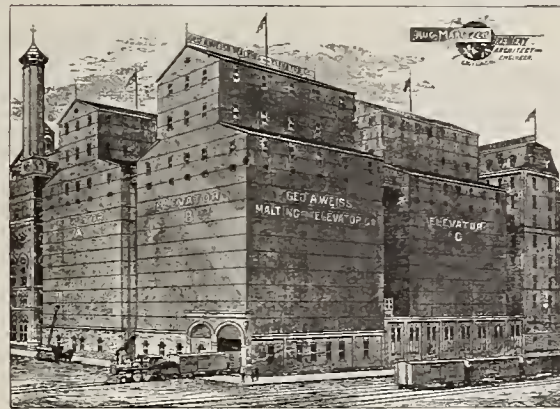
Architects and Builders

OF ALL KINDS OF

GRAIN ELEVATORS.

A. Maritzen Company,

ARCHITECTS, ENGINEERS AND BUILDERS OF



Grain Elevators,
Breweries,
Malt Houses and
Distilleries.

Rooms 42 to 50, 177 La Salle St., Chicago.

THE EASY PUSHER.

More Powerful than A TEAM OF
HORSES or TEN MEN.

Does not lift, but PUSHES.

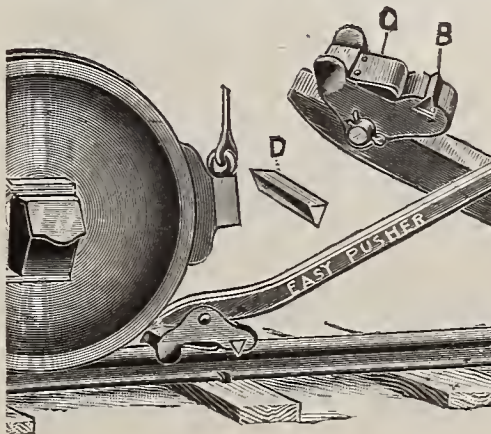
WHY THE BEST

- 1—It will work on any track and under any brake.
- 2—It is very durable, and the parts that wear out can be replaced for a trifle.
- 3—It is strong, durable and convenient, and can be used by any person.
- 4—Nothing to break or get out of repair.
- 5—Rough, greasy, icy or wet rails do not affect it.
- 6—It can move twice as many cars as any other car moving device.

You take no chances—we send it on 30 days' trial, to responsible parties.

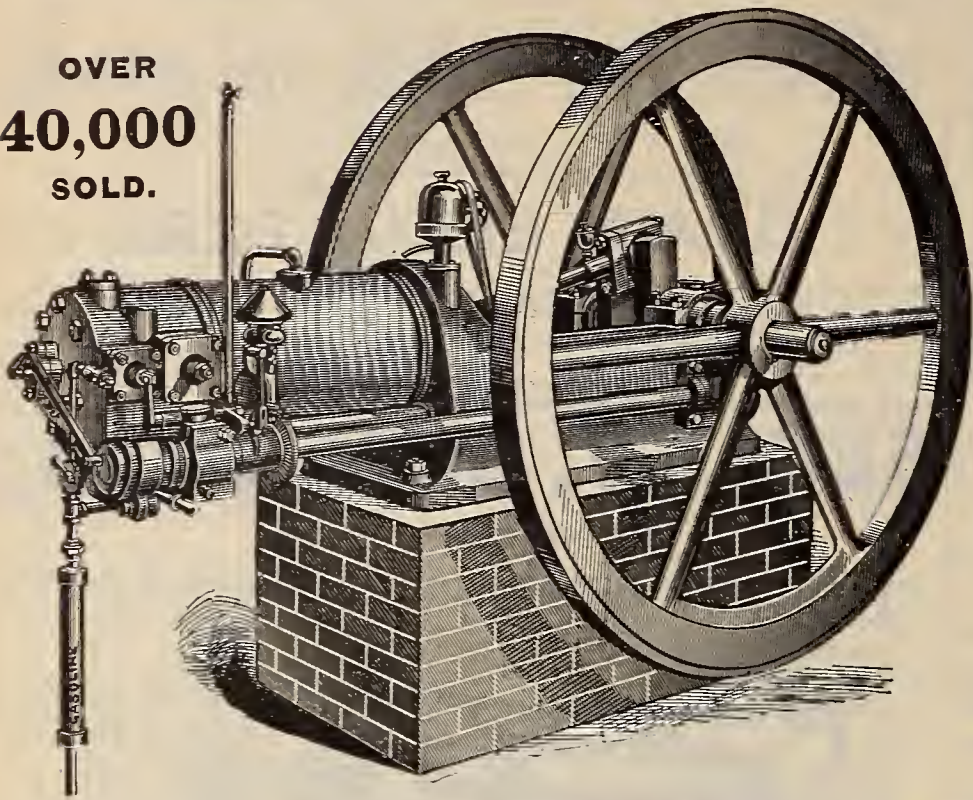
W. T. LAMOREAUX CO.,

Price, \$5.00. GRAND RAPIDS, MICH.



The Modern Wonder.

OVER
40,000
SOLD.



OTTO GASOLINE ENGINE



WORKING WITHOUT BOILER, STEAM, ENGINEER,
COAL, ASHES, OR DANGER.



2 Medals and 3 Diplomas at World's Columbian Exposition, making over 200 Medals and Diplomas in all.

Capacity of Works: 800 Engines per Year.
Sizes: 2 to 120 Horse-Power.

Best and Cheapest Power for GRAIN ELEVATORS,
FLOUR AND FEED MILLS, CONVEYORS, ETC.

THE OTTO GAS ENGINE WORKS,

OFFICES: { Thirty-third and Walnut Sts., Philadelphia.
245 Lake St., Chicago.
35 E. Ohio St., Indianapolis.
321 S. 15th St., Omaha.

\$2.00



PUBLISHED THE FIRST DAY OF EVERY MONTH.

ESTABLISHED IN 1873.

The Best Exponent of Modern Milling.

SUBSCRIPTION PRICE,

\$2.00 PER YEAR.

Each number is worth the cost of an entire year's subscription of every man in the trade.

SEND FOR SAMPLE COPY.
ADDRESS,

\$2.50

— FOR —

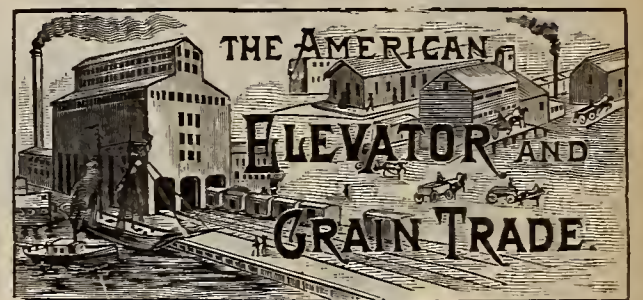
BOTH FOR ONE YEAR.

You can get such value nowhere else for your money. Many readers want a paper that comes twice a month. THE AMERICAN MILLER and THE ELEVATOR are offered at less than such a paper could be given for. You need them both in your business.

\$2.50

Two Papers a Month.

\$1.00



PUBLISHED THE FIFTEENTH OF EVERY MONTH

ESTABLISHED IN 1882.

Subscription Price, Only \$1.00 Per Year.

Each Number Contains 44 Pages
of Valuable Matter.

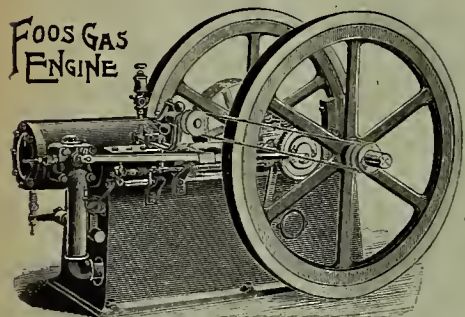
THE AMERICAN ELEVATOR AND GRAIN TRADE is the only paper of its class in the field.

Mitchell Bros. Co.

PUBLISHERS.

184 & 186 Dearborn St., CHICAGO, ILL.

THE NEW FOOS GAS and GASOLINE ENGINE.



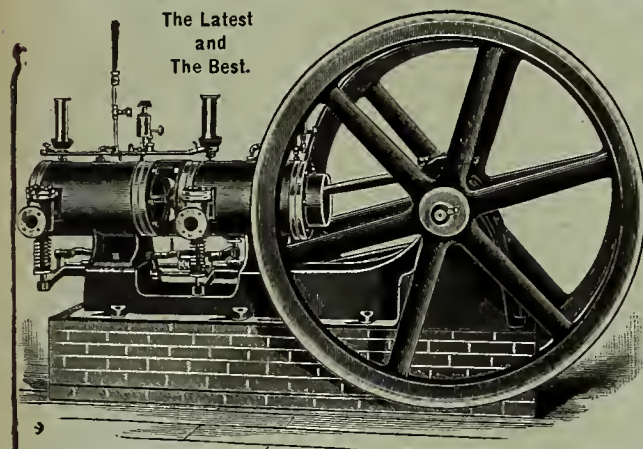
We can furnish Engines from 2 to 100 horse power, that are reliable and economical. Cost of operating Gasoline Engines, one cent per horse power per hour.

We furnish free with every engine an Electric Battery to explode the gas, that will last four months without any attention, then it can be renewed and will last four months more and so on for all time.

We do not use a red hot tube to explode the gas, that has to be replaced with a new one almost daily.

FOOS GAS ENGINE CO., Springfield, Ohio.

The Hicks Gas and Gasoline Engine.



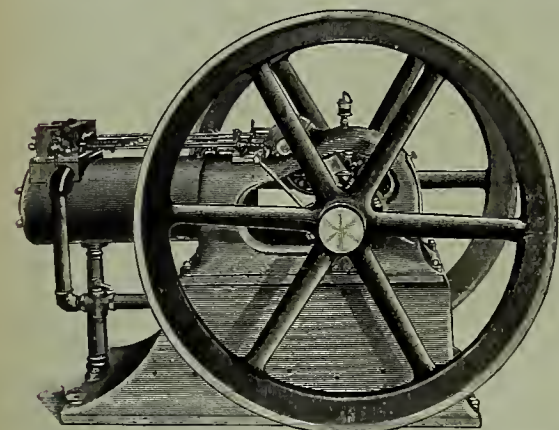
The Latest and The Best.

The Long Sought for Found at Last.

An impulse with every turn of the crank. Less gas or gasoline. Steadier motion. Easily started. Less space. Self adjusting in all its bearings. Price within the reach of all. Adapted to all uses, and as much better than the ordinary gas engine now on the market, as the Corliss steam engine is better than the common slide valve of twenty years ago. Two to one hundred horse power. Both vertical and horizontal. Write for catalogue and prices.

The Hicks Company,
Times Building, New York City.
C. A. AMES, Minneapolis,
Northwestern Representative.

THE DAYTON GAS AND GASOLINE ENGINE

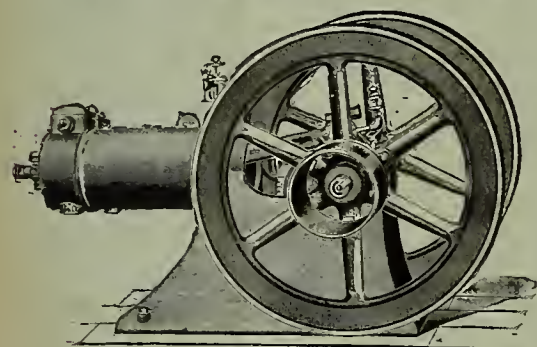


Simplicity,
Regularity,
Ease.

FROM 1—50 H. P.

THE DAYTON
Gas Engine & Mfg. Co.,
50 S. St. Clair St.,
DAYTON, OHIO.

The Pierce Gasoline Engine



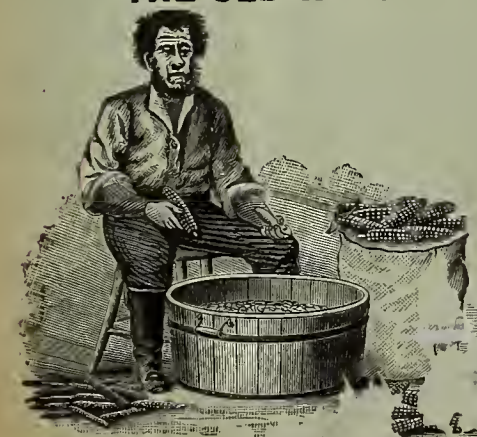
1895 DESIGN

Is the simplest Engine on the market. It is the Cheapest because it is the Best. Equipped with Electric Starter and Igniter also; hot Tube Igniter if wanted, without extra charge. Address

Pierce Engine Co.,

16th and Racine Sts., Racine, Wis

THE OLD WAY.



For NEW and BEST Way ADDRESS

UNION IRON WORKS,

DECATUR, ILL.,

Manufacturers of the CELEBRATED

Western Shellers and Cleaners

The "Best in the World."

Elevator Supplies of All Kinds a Specialty.

We are the Pioneer Elevator Builders of the West and have a priority in the building of cheap and efficient elevators with increased conveniences.

Write for Catalogue.

C. D. HOLBROOK & CO.,

Grain Elevator Machinery of Every Description,
Power Car Pullers, Steam Shovels,
Flax Reels, Separators, Horse Powers, Etc.

SOLE NORTHWESTERN AGENTS FOR THE FAMOUS

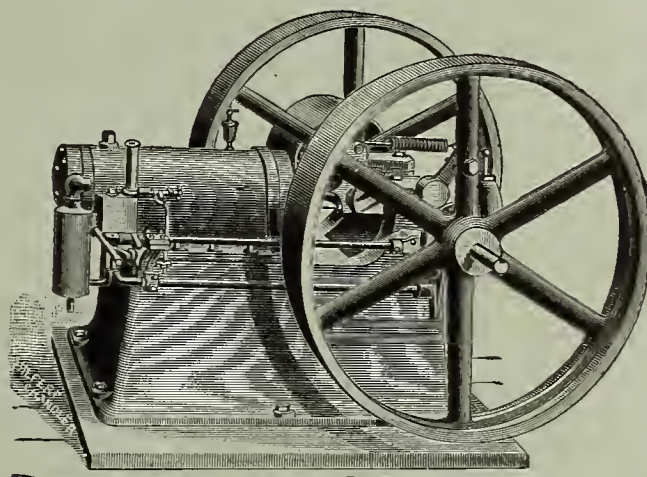
CHARTER "GASOLINE" ENGINES.

SEND FOR ILLUSTRATED CATALOGUE.

305 Third Street South, - MINNEAPOLIS, MINN.

A MODERN MOTOR UNEXCELLED.

THE "LEWIS" IMPROVED Gas and Vapor Engine.



WRITE FOR CATALOGUE AND PRICES.

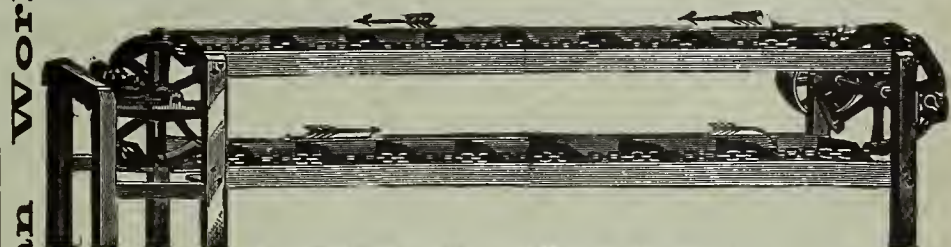
WRITE FOR CATALOGUE AND PRICES.

WEBSTER MFG. CO.,

—o((SOLE MAKERS,))o—

Office and Works, 1075 to 1097 W. 15th St., CHICAGO.

HARRISON CONVEYOR.

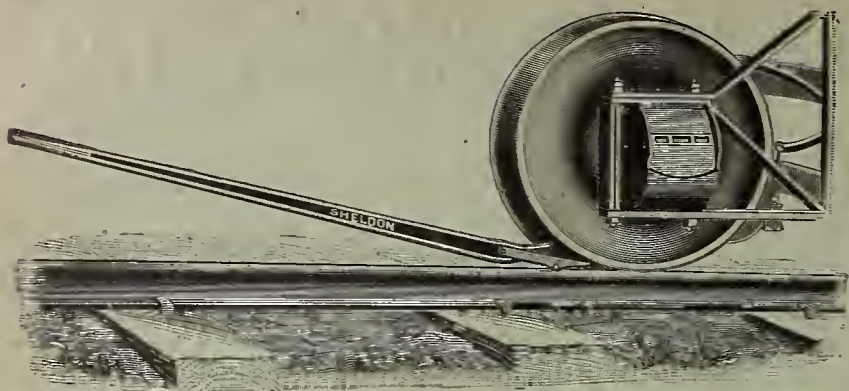


All Wrought Iron. No Mixing of Grain.
IT CARRIES Grain, Seeds, Ear Corn, Wet or Dry Malt, Coal, Sand, Sawdust, Tan Bark, Stone, Cinders, Clay, Paper Pulp, Cotton Seed, Etc., Etc.
SEND FOR CIRCULAR AND PRICE LIST.
BORDEN & SELLECK CO., Gen. Agts., 48 and 50 Lake St., CHICAGO, ILL.

THE BEST & CHEAPEST
BELTING
IN THE WORLD

STITCHED CANVAS BELTING
MANUFACTURED BY
THE CHESAPEAKE BELTING CO.
BALTIMORE, MD.

AMERICAN ELEVATOR AND GRAIN TRADE.



The Popular "Sheldon" Compound Pinch Bar.
Does not Slip on Track—Just the thing for frosty weather.



Improved Spiral Steel Conveyor.
"STEEL PLATE" FRICTION CLUTCHES, ELEVATOR BUCKETS, ETC.

Webster Mfg. Co.,

Engineers, Founders and Machinists,
Office and Works, 1075-1097 West 15th St., CHICAGO.
Write for Columbian Catalogue.

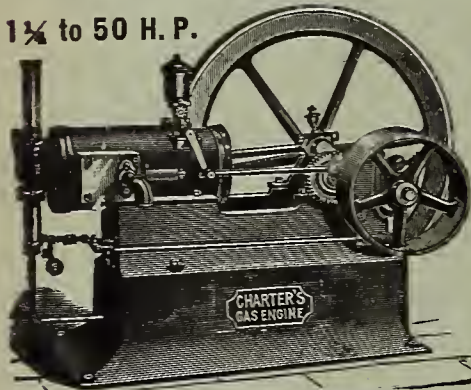
STERLING, ILL., 400 Locust Street,

Is where you must address for printed matter and information regarding

THE MOTOR OF THE 19th CENTURY,

USED ANY PLACE, BY ANY ONE,
FOR ANY PURPOSE.

1½ to 50 H. P.



Economy, Reliability, Simplicity, Safety.
MANY IMITATIONS.
ONLY ONE ORIGINAL.

CHARTER GAS ENGINE CO.

FEED MILL, SHELLER, ETC.

Engine was set up and started by printed directions.

LOST NATION, IOWA, Sept. 7, 1895.
CHARTER GAS ENGINE CO., Sterling, Ill.

GENTLEMEN:—In January we purchased our No. 5 "Charter" for our Feed Mill, running a 20-inch French Burr, Sullivan Corn and Cob Mill, Elevators, 2 hole Sheller, etc., etc. It meets your claims as to economy, reliability, safety, etc., and it requires no attention. We cheerfully recommend the "Charter" to all for all kinds of work.

Yours respectfully,
DOBLING & HEITMAN.



OUR CUSTOMERS SAY—

"They think our mills are the best that are manufactured."

As there is no adverse criticism they must be the best.

In every State of the Union these mills are located and they never fail to do all and even more than we claim. Every part is interchangeable and can be replaced at a nominal cost.

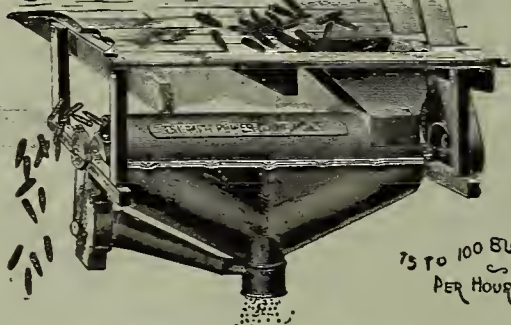
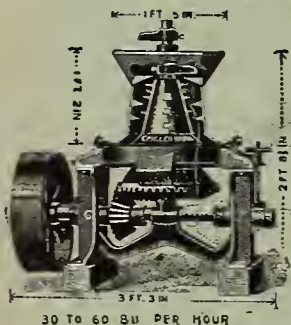


SPROUT,
WALDRON
& CO.,

MANUFACTURERS
MUNCY, PA.

Mill Builders
and Contractors.

TRIUMPH



M.F.D. BY
C.O. BARTLETT. CLEVELAND, O.

OUR

VERTICAL FEED MILLS.

Are the Best on Earth.

Send for Circulars.

NEVER A PEER



The Salem Bucket has had imitators, but most ever claimed by competing buckets is that they "are as good as the Salem."

We fixed the standard to which others aspired, but the Salem is now, as it always has been, incomparably the

BEST BUCKET MADE.

The BEST is what you want. It is the cheapest and most satisfactory in the end. Besides, the Salem is sold as low as other buckets.

ALL KINDS OF SHEET AND PLATE METAL WORK.

W. J. CLARK & CO., SALEM, OHIO, U. S. A.

MANUFACTURERS OF ALL KINDS OF BAGS

GRAIN BAGS

AND BAGS FOR MILLERS USE A SPECIALTY.
MILWAUKEE BAG CO. MILWAUKEE, WISCONSIN.

ESTABLISHED 1802.

Wm. B. Scaife & Sons,

Offices: 119 First Avenue, PITTSBURG, PA.

MANUFACTURERS OF



FOR HANDLING GRAIN, COTTON SEED, PHOSPHATES, ORES, ETC.

Engineers, Manufacturers and Builders of

STEEL FRAME BUILDINGS,

IN ALL PARTS OF THE U. S.

Steel Tanks, Stacks, Etc.

For Covering Barns, Elevators, and all other structures.

Send for Catalogues.

SEEDS

THE ALBERT DICKINSON CO.

Timothy, Clovers, Flax, Hungarian, Millets, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Bird Seeds, Ensilage Corn, Pop Corn, Buckwheat, Field Peas, etc.

OFFICES, COR. CLARK & SIXTEENTH STS., CHICAGO, ILL.